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ABSTRACT

This literature review covers studies and reports on a wide range of behavior patterns relative to the aging process. While most of this work deals with education for aging in terms of adult problems and interests, attention is also given to developments in early life experience and in attitudes which tend to set the pattern for later life characteristics. Respective chapters focus on learning characteristics and abilities of older adults; existing opportunities and remaining areas of need for education on aging in the educational system; job retraining and other kinds of informal educational opportunities; and factors germane to preparing for retirement. Annotated chapter bibliographies (a total of 237 items) also appear. Instructions for ERIC document ordering are furnished. (LY)

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# education for aging:

## a review of recent literature

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earl kauffman

ERIC Clearinghouse on Adult Education
and
Adult Education Association of the USA

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July 1970

# FOREWORD

The literature dealing with education for aging has been increasing continuously, keeping pace with the mounting interest in gereontology, geriatrics, and other related areas. During the past three years, the ERIC Clearinghouse on Adult Education has processed several hundred significant documents about education for aging. The profusion of documents about the learning characteristics and abilities of older adults, informal and formal programs in education for aging, and preretirement and retirement education called for some kind of analysis and review.

We are grateful to Dr. J. Lee Jacobs, Dr. W. Dean Mason, and Dr. Earl Kauffman -- the editorial committee of the Section on Education for Aging of the Adult Education Association of the U.S.A. -- for undertaking this review of recent literature dealing with education for aging. They have provided an organized guide to this body of research, development, and practice, as well as a commentary on the problems and trends in this field, making it useful for both the researcher and practitioner.

Many of the documents reviewed are available from regular publishing sources; others may be purchased in inexpensive microfiche or hard copy reproductions from the ERIC Document Reproduction Service (EDRS). (Please read carefully the note on availability of documents on page 109.) Education for aging entries through the February 1970 issues of Research in Education or in Current Index to Journals in Education -- the best sources for keeping up with current literature in this and other areas of education -- have been assembled in this publication. These two abstract journals are now widely available in education libraries, universities and school systems.

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We are also grateful to the Adult Education Association of the U.S.A. for making this publication more easily available to a wider audience.

Stanley M. Grabowski
Assistant Director
ERIC Clearinghouse on Adult Education

July 1970

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# CHAPTER I

## INTRODUCTION

by

H. Lee Jacobs, Ph. D.

Only recently has there been a growing conviction that while "getting older" is universal, how a person ages is something he can, with the help of his community and the educational system, influence substantially. Moreover, it may be said that the success of any community is measured by the way in which it meets the needs of its old, no less than of its young. While it is true that one's old age is in an important sense what one makes it, in our modern American society the community has a concomitant responsibility for creating conditions that make it possible for the great majority of older people to lead the independent, mentally stimulating, and emotionally satisfying lives of which they are capable.

It is only comparatively recently that older people have been thought of as having educational needs. Intellectual coasting for the latter half of life seems to have been the expected and legitimate course of events. However, since the early 1950's this slander on late adult mentality has gradually changed, due to the increasing "visibility" of the elderly in our midst, and more favorable research findings relative to the capacities of older people. This change in attitudes and values has been responsible for a fresh look at old age and the aging process (8, 12, 13).

Certain other factors in our society also add to the justification for special emphasis on educational needs of older adults. These include technological, economic, and societal changes since the turn of the century, which have altered the roles, status and living patterns of older persons (14).

Education for aging has been going through a period of innovation and experimentation, particularly during the past fifteen years. That which has transpired during this time has broad implication for education generally, as well as for future developments in education for aging (6, 11). However, from the standpoint of both the public schools and higher education it must be said that there has been insufficient breaking of new ground. This is especially true with reference to instructional methods in this area. Some of the methods appropriate for education in childhood and youth are definitely not helpful in educating older adults. At the same time, there is a dearth of good teaching materials on the subject of aging available for younger people (1, 8, 10, 11 13).

Delineation of the ways in which these linked "aging needs" of adults and the younger generation are being determined and their answers arrived at, as set forth in the educational literature, will be a major purpose of this monograph.

## A. DEFINITIONS

### Aging

Although there is no general agreement on a definition of aging, the position taken here is that aging is a normal biologic (as contrasted with pathologic) process (progressive changes) beginning with conception and continuing at varying rates in cells, tissues, and organs throughout the life span. In its broadest sense, it may be said to be a process first characterized by growth changes, (involving emergence and death of body cells) and then (during senescence) deterioration, or progressively reduced "growth potential" which eventuates in a decreased ability to withstand stress, including pathological encroachments (11, 15).

### Education for Aging

This should be conceived as one aspect of the total educational program, fitting into the developmental concept, wherein individuals, irrespective of age, are seen as being involved in a continuum of interrelated developmental tasks, which begin with infancy and end only with the rounding out of old age (3, 4). Since, as studies have shown, negative attitudes toward aging and old age have been found in very young children, education for aging should be initiated with the beginning school program and carried forward with broadening scope and increasing emphasis into adulthood (2, 5, 6, 7, 9, 10).

## B. SCOPE OF THIS REVIEW

Since aging is a universal phenomenon, cutting across the total educational spectrum of disciplines and age levels, this review has necessarily included studies and reports dealing with the whole gamut of patterns of behavior, in relation to the aging process. While the preponderance of the information covered herewith deals with education for aging as it relates to adult problems and interests, developments in early life experience and attitudes which tend to set the pattern for "late life characteristics" are also given due consideration.

## C. UTILIZATION IN EDUCATIONAL PLANNING

There is now a growing interest among curricular specialists in public schools, colleges, and universities in initiating (where they do not already exist) or expanding (where courses, or some emphases are already under way) offerings in the area of education for aging (9, 11).

A concurrent interest in education for aging at the more informal community and organizational level is now much in evidence, with church groups, sundry agencies, senior centers, and camping programs featuring a variety of emphases in education for aging at the older adult level. The material on education for aging presented in this review, having been for the first time drawn from the widest possible sources, should afford valuable assistance in educational planning for all age levels, beginning school years through adulthood.

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1. THE COMMON BODY OF KNOWLEDGE. (Presented at the 20th Annual Conference on Aging, University of Michigan, July 24, 1967). Donahue, Wilma. 20p. 1967.

   Knowledge about aging cannot be viewed accurately except in the perspective of our times of social and economic change and longer life cycle. Educational goals for the first part of life must now be defined in relation to an additional 25 years of life. Children should be taught the principles of hygiene and physical fitness, proficiency in sports and recreational activities, and the satisfactions derived from learning. In family-life courses the problem of aging can be approached directly. There is need to arouse teachers to the importance of adding aging to courses. In such college courses as psychology, sociology, economics, and political science, there are opportunities to introduce problems of aging. A more effective way of arousing interest is in the use of the out-reach method, by which students are brought into contact with social problems they are studying. Only a few universities provide specialization in aging at the graduate level, but Ph.D.s can be taken in such subjects as psychology, sociology, and human development, with a specialization in aging. Professional training is available in some schools of social work and public health. State and community agencies are asking colleges to provide inservice and post-graduate training, and consultation on an informal or planned basis.

2. BACKGROUND PAPER ON EDUCATION FOR AGING. Davis, George (ed.). Washington, D.C., Department of HEW. 1960.

3. HUMAN DEVELOPMENT AND EDUCATION. Havighurst, Robert J. Longmans, Green and Company. New York. 1953.

4. ADULT EDUCATION AND HUMAN DEVELOPMENT. Havighurst, Robert J. In CENTRO SOCIALE International Issue; v14 n76-78 p19-30, 12p. 1967.

   The view that education, rather than being basically preparatory, is a way of meeting demands and aspirations of the present period of one's life, is the most profound educational change of this century. Education has two basic and essential aspects--instrumental (aimed at modifying the situation of the learner) and expressive (directed toward more intrinsic goals), and in a changing society a competent person must combine both kinds of learning at each stage of life. Adult development can be viewed in terms of successive social roles and developmental tasks--getting established in adult roles (ages 20-40), living on a high plateau of influence and energy (40-55), maintaining one's position and looking ahead (55-65), and disengaging successfully (65-80). As revealed by this analysis, the major challenge lies in finding ways to extend adult education beyond its instrumental forms into more expressive or intrinsic forms, to serve more people over 50, and to serve more working class people.

5. YOUNG PEOPLES CONCEPTION OF OLDER ADULTS. Hickey, Tom and Kalish, Richard A. JOURNAL OF GERONTOLOGY, Vol. 23, No. 2, p215-219. April, 1968.

6. DEVELOPING A MORE POSITIVE CONCEPTION OF AGING DURING THE FORMATIVE YEARS. Jacobs, H. Lee. In SELECTED PAPERS: FIFTH ANNUAL NATIONAL CONFERENCE OF STATE EXECUTIVES ON AGING. Welfare Administration, U. S. Dept. HEW, OA 123, Washington, D.C. p59-64. August, 1965.

7. AN APPROACH TO EDUCATION FOR AGING FOR CHILDREN AND YOUTH. Jacobs, H. Lee. In PROCEEDINGS: FIFTH ANNUAL GOVERNOR'S CONFERENCE ON AGING, Sept. 18-20, 1968. Commission on Aging and the Aged, 1015 State Office Building, Indianapolis, Indiana 46204.

8. YOUTH LOOKS AT AGING: AN APPROACH TO CONTENT FOR A UNIT OF STUDY AT THE SECONDARY LEVEL (Revised Edition). Jacobs, H. Lee. Division of Extension and University Services, The University of Iowa, Iowa City, Iowa 52240. 1969.

9. EDUCATION FOR AGING. Jacobs, H. Lee. Hoffman, Adeline M. (ed.). In THE DAILY NEEDS AND INTERESTS OF OLDER PEOPLE. Springfield, Illinois: Charles C. Thomas, Publisher. 1970.

10. GRADUATE EDUCATION IN AGING WITHIN THE SOCIAL SCIENCES. Kleemeier, R. W. and Birren, J. E., Kushner, Rose E., and Bunch, Marion E. (eds.). Division of Gerontology, The University of Michigan, Ann Arbor, Michigan. 1967.

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12. UNDERSTANDING THE OLDER ADULT; A TEACHER'S MANUAL AND COURSE OF STUDY FOR USE IN ADULT EDUCATION CLASSES IN SECONDARY SCHOOLS. Los Angeles County Superintendent of Schools, Calif. California State Dept. of Welfare, Sacramento, Sponsor. Laco No. 93. EDRS Order Number ED 029 238, price MF $0.50, HC $4.05. 79p. June 1966.

    Based on a study of training needs among personnel connected with homes for the aged in California, this publication is a teacher's manual as well as a course of study for older adults, their friends and relatives, volunteer workers, and professionals. The following topics are covered: the aged in a changing society; the increase in the aging population; types of living patterns; intellectual, medical, and other aspects of aging; basic material and psychological needs of older adults; concepts of successful aging; and ways of helping the aged to achieve life satisfaction. Suggested readings and activities are included, together with a bibliography and a film list.

13. PROCEEDINGS: CONFERENCE ON THE ROLE OF EDUCATION FOR AGING AND THE AGED. The University of Minnesota, Minneapolis, Minnesota. November, 1961.

14. OLDER PEOPLE AND THEIR SOCIAL WORLD. Rose, A. M. and Peterson, Warren A. F. A. Davis Company, Philadelphia, Pennsylvania. 1965

15. TRENDS IN AGING. Shock, Nathan W. Stanford University, Stanford, California. 1957.

## CHAPTER II

# LEARNING CHARACTERISTICS AND ABILITIES OF OLDER ADULTS

by

H. Lee Jacobs, Ph. D.

Until recent years culturally trumped-up incompetence of older adults has been generally regarded as the sad lot of mankind, inescapable as breathing and thus to be endured as a special "cosmic burden" thrust upon our species by an inscrutable fate. In fact, many in our youth-oriented culture still have not outgrown the ancient Roman belief that senectus ipsa morbus ("Old age is in itself a disease"). Nevertheless, one of the most important insights turned up by the restless tides of social change in our generation has to do with the capacity of adults for continued mental growth and personal development. Although sharing with all other ages many significant life concerns, older adults are now thought to possess certain intellectual needs which, if not confined to their age alone, have become more urgent for them. There is a growing insistence in educational circles that the development, conservation, and use of the intellectual and creative potentials of the older members of our society should be one of our major educational aims (17).

If, as liberal educators contend, our chief objective in learning should be an expanded and enriched life, rather than merely preparation for success in a vocation or occupation, which, in our technological and retirement-conscious age is apt to be transient, we must reassess our intellectual needs as we grow older (34, 42).

## A. VARYING VIEWS OF THE NATURE OF INTELLIGENCE

Perhaps most damaging of all among behavior determining factors encountered by the elderly are the stereotypes, relative to loss of mental powers and other basic capacities which are thought, by a surprising number of people, to mostly vanish with age. Both younger and older people have tended to accept incompetency as a "natural phenomenon" during the later years.

This outlook, a cultural derivative, has been reinforced by various pronouncements from the educational world. Some forty years ago a Columbia University professor of psychology, H. L. Hollingsworth, wrote a book in which he set forth the classic view that mental decline and physical loss are two facets of the aging process, taking place simultaneously and marking a natural and unalterable course of events. On the mental side, as he described it, this decrement first becomes measurable in early adulthood and accelerates with age. Said Hollingsworth, "Sooner or later even the longest lived begin to move downward or backward on the growth curve, through senescence to senility .... Some features begin to decline relatively early, as in the case of memory, curiosity, and enthusiasm; others defer their involution to the later days" (28).

Here we have a clear statement of the bleak picture of aging and old age which, in varying degrees, has obtained quite generally until very recently, both in educational circles and in the popular mind, but more especially in the thinking of older adults themselves. Even as recently as 1958 the well known student of adult intelligence, Dr. David Wechsler, stated that "nearly all studies dealing with the age factor in adult performance have shown that most human abilities, insofar as they are measurable, decline progressively, after reaching a peak somewhere between ages 18 and 25. The peak age varies with the ability in question, but the decline occurs in all mental measures of ability, including those employed in tests of intelligence." Wechsler further asserted, "We have advanced the hypothesis that the decline of mental ability with age is part of the general organic process which constitutes the universal phenomenon of senescence" (59).

The findings of other research, in which the performance of age levels have been compared, have been considered as confirming, in sundry respects, the invariable progressive decline hypothesis (1, 6, 7, 13, 14, 15, 19, 20, 21, 23, 29, 51). In fact, most people, including some engaged in the healing art, still divide life into five stages -- childhood, adolescence, maturity, senescence, and senility, whereas we now know that senility is not a function of physiological age, as such, but of many factors only one of which is biological aging. Other contributing factors include malnutrition, lack of mental activity, isolation which has become desolation, chronic illness, and poverty of life concerns. All of these make for erosion of mental powers often observed in many aged persons, especially in certain isolated settings. However, most, if not all, of these are amenable to modification or control.

An attempt at some modification of the traditional grim outlook on capacities in later years has been undertaken by Jack Botwinick, Professor of Medical Psychology and Research member of the Duke University Center for the study of Aging and Human Development. While he feels compelled to say that on the basis of studies made thus far on learning in older adulthood "there is little doubt that learning performance declines with increasing age," he does raise the question as to whether this decline is due to inability to learn, or to non-cognitive factors, such as loss of speed, health impairment, the incidence of which is greater with advancing age, weaker motivation (or drive level), poorer education, unfortunate early family and school experience, etc. Botwinick asserts that these non-cognitive factors do change with age, and thus make for poorer performances. He states further that "at this time, an adequate basis to resolve this doubt does not seem available, although a common opinion is that changes with age in the ability to learn are small, under most circumstances." And he concludes by saying that "There are not many studies that have been carried out to specifically test the notion that non-cognitive factors, rather than learning factors, produce performance deficits with age" (11, 12).

While Botwinick's guarded outlook on the mental capacity of older adults appears to be an improvement over Edward L. Thorndike's (57) starkly pessimistic inference as to intellectual decrement with age, -- i.e., ability to learn falls off about 20 percent from age 22 to 42 --, some researchers in recent years, reviewing Thorndike's findings, have insisted that his pronouncement was actually not indicated by his own data (15, 50).

## B. CROSS-SECTIONAL AND LONGITUDINAL STUDIES OF LEARNING PERFORMANCE WITH AGE

I think it is fair to say that longitudinal studies (continuing study of the behavior of one individual or group) carried on by Drs. Nancy Bayley, William Owens and others since 1950 (2, 3, 9, 10, 38, 39, 41, 42, 43, 46, 48, 53, 56, 60, 61) as contrasted with cross-sectional studies (comparison of the performance of different age groups in one test situation) conducted by H. E. Jones, H. S. Conrad, and W. R. Miles in the early 1930's (31, 40, 41, 51, 52, 53) have produced ample evidence to refute the concept of invariable progressive decline of mental processes with age. In fact, it may now be said that, barring cerebrovascular (brain) accidents, mental ability, at least of initially superior quality, is ageless; and that assuming continuing health improvement and equalization of educational status and stimulation in the later years of life, the erstwhile observed differences in intellectual performance between youth and older adults may disappear.

A number of studies, both cross-sectional and longitudinal, have turned up convincing evidence that full mental ability is often retained in late old age, and that many of the so-called "senile symptoms" are remediable, rather than representing an irreversible organic state (4, 16, 18, 22, 27, 32, 33, 37, 44, 45, 47, 50, 53, 58).

The insidious popular notion that the preponderance of older people are weak, sick, have poor memory function, and are not very intelligent has no basis in fact. This position is strongly supported by recent evidence

(44). Perhaps the most widely held of these fallacies, relative to the so-called incompetence of the elderly, is that memory universally declines with age, and, moreover, that recent memory declines more than remote memory. However, Professor Belle Boone Beard, Lynchburg College, who has studied centenarians over more than a decade, has recently completed a representative sample testing of 166 one-hundred-year-olds on both recent and remote memory items, including the WAIS (Wechsler Adult Intelligence Scale) digit tests, memory for names, etc. Among the centenarians tested she found no support for the popular notion that older people have good memory for remote events, but poor for recent events. In fact, her data showed "no age limit on any type of memory." She does impose a qualifying comment on her report, namely, that "People who exercise their memory retain it longer than those who do not, and social activity is not as important as mental activity for keeping the memory alert" (4).

From the information which we now have at hand I think we may conclude that there is no period of life, including older adulthood, in which people cannot continue to some degree to grow mentally. This may not mean so much a continued accumulation of facts, or the development of new techniques and skills, though these are not ruled out. However, we certainly can enlarge our understanding of the world around us, whether of human beings or things (8).

As Crabtree has pointed out (17), a major weakness of the educational system in this country is that it was founded upon, and, to an uncomfortable degree, continues on a terminal philosophy of education, namely, that the educative process should end somewhere in the early years. There is certainly no question in the minds of most educational leaders today that this is false thinking, for two reasons: 1) because it presupposes that individuals can be taught enough in childhood and youth to last them a lifetime, and 2) that older adults cannot learn.

## C. THE PROBLEM OF MOTIVATION FOR LEARNING

Some research, "bristling with social implications," has been done by Drs. David Krech and Edward L. Bennett at the University of California and was reported on for the first time at a conference on "MIND AS A TISSUE," held at Philadelphia, Pennsylvania in 1967 (35). This research has produced what appears to be exciting collaborative evidence from the world of lower animals, as to what an intellectually stimulating environment can do toward the improvement of problem-solving ability and general performance. The research involved ten genetically different strains of rats. One group of these was placed in an intellectually stimulating environment, consisting of bars to push, toys to play with, ladders to climb, tunnels to explore, and other rat-oriented stimulation. These rats lived twelve to a cage and were let out of their cage for a half hour each day to explore new environments. The underprivileged lived alone in bare cages in a darkened, sound-dampened room and were rarely handled. To minimize genetic differences, the stimulated rats were brothers to the underprivileged rats.

After eighty days in these environments, the rats were given a maze test requiring problem-solving ability, learning capacity and good memory. The rats from the intellectually stimulating environment mastered the maze in two days, while the underprivileged rats could not find their way through with facility after two weeks. At postmortem, it was found that the brains of the rats from the two environments varied as to cortex size and amounts of blood vessels, nerve cells and enzymes, even though the rats were closely related. It was also found that genetically inferior rats -- when raised in an intellectually stimulating environment -- develop brains just as heavy and with as great problem-solving ability as do genetically superior rats raised in an underprivileged environment. Finally, it was found that when rats taken from an underprivileged cage and put into an intellectually stimulating cage, the improved environment appeared to make up for the deficiencies of the earlier environment.

Now, while Drs. Krech and Bennett caution against drawing conclusions from these experiments at this time, I do think that the findings reinforce our conviction that an intellectually stimulating and opportunity enriched environment, such as we covet for our elderly, can make growing older an important journey into ever greater life realization; a summons from the heights, rather than a sentence of doom from oblivion. Adult educators are turning up increasing supportive evidence of the soundness of this position. Moreover, they have found that adults who continue to participate in educative activity learn more effectively than do similar adults who do not (26, 54, 58, 61, 62).

One well-known adult educator, Lloyd M. Wolfe of the Jackson-Michigan Public Schools, in a study of later life adjustments of two groups, each of fifty men and women, found that "the data supported the hypothesis that happiness and good adjustment in the later years are related to reading and study with the purpose of learning during adulthood." In fact, the difference in performance between the "well-adjusted" and the "poorly-adjusted" was found to be statistically significant (60).

It is not realistic to expect all older adults to participate in learning programs, but we are doing much more today than formerly to approximate this goal. This is the theme of many recent books and articles which present a panoramic view of the emerging trek of older adults back to school and other opportunities for learning. And the thought is recurrently emphasized that older adults should now work more assiduously at laying the groundwork for that possible day when death may become simply accidental for most human beings, thus confronting our kind with more viable years than we can now imagine being the lot of even the most superior among us (49). From the standpoint of educational institutions, this will call for increasingly challenging and innovative effort in the area of content and methods of teaching (5, 24, 32, 33, 34, 45, 51, 52, 55).

## D. PSYCHOLOGICAL AND CULTURAL BARRIERS TO LEARNING: ENHANCING THE OLDER PERSON'S APPRECIATION OF HIS OWN POTENTIALS

There are actually only two types of barriers to learning in the later years -- psychological and cultural -- and these are inextricably related, in that one reinforce the other. Although it has been well established that individuals are not deprived of learning ability simply because of advancing age, they are beset by a cultural milieu which, as Larson and others (36, 37, 38) have pointed out, imposes a many-faceted and insidious pattern of discrimination upon the elders in our midst, including economic, cultural, social, educational, and even medical aspects. The psychological damageto older adults is unmistakable, since it tends to categorize them as "second class" citizens and thus to undermine their earlier convictions concerning continuing ability to learn, sense of personal integrity and worth, and potential as producers of social values.

There is now ample evidence to show that persons moving up to old age who espouse "youthful" views about remaining vigorous and active, who resist believing that age, as such, must bring unrelieved decline and disease, have higher morale, are intellectually more able, and make better adjustment, even though obviously ill and aged, than those who hold the stereotypical, pessimistic convictions that old age is mostly decline and deterioration. Moreover, it is becoming increasingly clear that failure to accept old age on traditional terms is not necessarily an indication of "ungraceful" aging, nor is it adequately explicable as "denial" of old age, a state which must come to all those who live long enough (8, 12).

There is a growing conviction among leaders in the field of aging that the psychological and cultural barriers to learning and personal development in the later years, as reflected in the predicament of a great number of our elderly citizens, can be surmounted or ameliorated in four ways, all of which involve what we mean by education for aging: (1) better understanding of the role of the older persons in the family system today; (2) more effective coordination of community activities, including institutional effort, in the interest of older people; (3) stronger motivative effort, especially through post-retirment programs in industry and mass media, toward keeping our older population "in touch" with the stream of life about them, despite the vicissitudes of the years which come to all men with the passage of time; and (4) what may be described as "preventive education," that is, pre-retirement training, to help those moving up to the old age status to "grow old gracefully," through learning how to keep relationally viable (30).

It should be said here, of course, that the blame for the psychological and cultural isolation which has been most damaging to the elderly in recent decades cannot be charged to any specific change in family life, so much as to the tendency of our youth-oriented culture to shunt the older citizenry into what the late Professor Ernest W. Burgess described as "roleless roles." That is, we have taken them out of the ranks of labor and positions of responsibility at an increasingly accelerated pace, without providing meaningful substitutes in which they can find worthwhile involvement. This is why we are today confronted with the challenge of a growing multitude of the elderly, who, due mostly to the fierce winds of cultural, social, and economic change, rather than to their own desire for functionless existence, find it increasingly difficult to realize continued usefulness and life fulfillment (8, 30, 36).

One can only add here that although older adults in this country are in a very real sense removed from the main stream of life upon retirement from the occupations and professions to which they have given the greater part of their lives, they are, on the average, still very much alive. They need more bridges to a new and genuinely meaningful life. Chief among these is continuing, easily accessible educational opportunity, a commodity within the reach of most communities (25).

## E. BIBLIOGRAPHY

1. ANTICIPATION INTERVAL AND AGE DIFFERENCES IN VERBAL LEARNING. Arenberg, David. In JOURNAL OF ABNORMAL PSYCHOLOGY; v70 n6 p419-25 December 1965.

   Age differences in verbal learning were demonstrated, and these differences were greater at the shorter anticipation interval than at the longer in two paired associate studies. Earlier work had suggested that this age-pace interaction was not a true learning effect but a performance deficit due to the difficulty older persons have in responding rapidly. The second study provided evidence that relatively few of the errors made by the old subjects (ages 60-77) at the fast pace would be attributed to insufficient time to emit a learned response. Even when subjects were permitted to take as much time as needed to respond, the age-pace interaction was found. Several possible explanations of such a learning deficit were noted.

2 THE MAINTENANCE OF INTELLECTUAL ABILITY IN GIFTED ADULTS. Bayley, Nancy and Oden, Melita H. Reprinted from JOURNAL OF GERONTOLOGY; v10 n1 p91-107, January 1955.

   A test designed to measure superior intelligence was administered twice, about 12 years apart, to 1,103 adults. Retests give strong evidence that intelligence of a type measured by the Concept Mastery scale continues to increase at least through age 50.

3. LEARNING IN ADULTHOOD; THE ROLE OF INTELLIGENCE. Bayley, Nancy. Chapter 8 in ANALYSES OF CONCEPT LEARNING. Herbert J. Klausmeier and Chester W. Harris, Editors. Academic Press, New York, N.Y. p117-138. 1966.

   In the longitudinal Berkeley Growth Study, subjects were tested at 16, 18, 21, and 26 years on the Wechsler-Bellevue, and at 36 years on the Wechsler Adult Intelligence Scale, which contain both verbal and non-verbal subscales. The most consistent increases in mean scores over the period were in information, vocabulary, and comprehension. Digit span and arithmetic scores leveled off, and women's scores on several tests declined after age 26. Test-retest correlations during ages 16-26 were more consistent among men than among women, most notably in vocabulary and information, less so in similarities, digit span, and block design. By contrast, childhood scores of males were less stable than those of females, suggesting sex-linked, differently-timed intelligence factors influencing adult mental performance. Finally, at age 36, men seemed to be achieving closer to capacity than women. It was concluded that motivation, drive, and time, rather than small variations in intelligence, might be the important determiners for learning in adults.

4. SOME CHARACTERISTICS OF RECENT MEMORY OF CENTENARIANS. Beard, Belle Boone. In JOURNAL OF GERONTOLOGY; v23 n1 p23-30. January 1968.

5. "UNLEARNING" AND ITS RELATIONSHIP TO AGE. Belbin, Eunice and others. In ERGONOMICS; v7 n4 p419-27. October 1964. Abstracts in English, French, and German.

The results of previous research have shown that adults experience difficulty in correcting or unlearning responses made in error and that this difficulty increases with age. Two experiments have been conducted using paired verbal associates. In one, subjects were encouraged to guess during repeated learning and testing trials. In the other they were asked to relearn response items which they were told had been presented in error. Neither young nor old subjects experienced difficulty in unlearning either the guess or incorrect responses. It is postulated that these responses were not difficult to extinguish since they were largely constrained by the experiment and in that sense "passive." On the other hand, responses more likely to persist are those made in a relatively open situation where the learner is allowed to create or reconstruct his response. Implications for adult training in industry are discussed.

6. INTERFERENCE EFFECTS FROM NEW LEARNING--THEIR RELEVANCE TO THE DESIGN OF ADULT TRAINING PROGRAMS. Belbin, Eunice and Downs, Sylvia. Reprinted from JOURNAL OF GERONTOLOGY; v20 n2 p154-9. April 1965.

The interference effects of activity undertaken between learning and subsequent testing some days later were examined in an industrial situation (post office). It was found that the performance of those in middle age suffered significantly more from intervening learning of new material than it did from intervening work activity. The performance of trainees in their 20's was not affected to the same extent by interpolated new learning. A second experiment showed that middle-aged people benefited considerably when their learning sessions were interspersed with self-testing sessions. By consolidating learning in this way, it was found that, within the same time limits, the information learned by middle-aged recruits in an industrial training school was retained better and was less susceptible to the interference effects of subsequent learning than when specific learning periods were distributed with other learning tasks.

7. TEACHING PAIRED ASSOCIATES; THE PROBLEM OF AGE. Belbin, Eunice and Downs, Sylvia. In OCCUPATIONAL PSYCHOLOGY; n40 p67-74. University College, London, England, Research Unit into Problems of Inudstrial Retraining.1966.

To determine the best method of teaching a paired associates task (manual postal sorting) to young adults (20-34) and mature adults (35-49), within a time limit, unskilled and semiskilled volunteers used four methods of learning--linear programming, list (memorizing), activity (learning by doing) and deduction (activity and linear program). The effectiveness of each method was tested by an activity or written test. It was found that younger persons had superior test results in list, programmed and activity learning. When deduction was introduced, older subjects had scores comparable to the younger.

8. THE PSYCHOLOGY OF AGING. Birren, James E. Prentice-Hall, Inc., Englewood Cliffs, New Jersey. 1964.

9. INTELLIGENCE. Bloom, Benjamin. In STABILITY AND CHANGE IN HUMAN CHARACTERISTICS by Benjamin Bloom. John Wiley, New York 1964.

When a number of longitudinal studies are compared with each other and allowances are made for the reliability of the instruments and the variability of the samples, a general pattern of relationships approximating the absolute scales of intelligence development formulated by Thorndike, Thurstone, and Heinis emerges. Data make it clear that intelligence is a developing function and that the stability of measured intelligence increases with age.

10. STABILITY AND CHANGE IN HUMAN CHARACTERISTIS. Bloom, Benjamin S. 247p. 1964. John Wiley, New York.

Changes in human characteristics are highly related to the environmental conditions in which the individuals have lived during the change period. Variations in the environment have the greatest effect on a characteristic at its most rapid period of change and the least effect during the least rapid period of change.

11. REORGANIZATION OF PERCEPTIONS WITH AGE. Botwinick Jack and others. In JOURNAL OF GERONTOLOGY; v14 p85-88. 1959.

A study compared two age groups with respect to the type of percept that is organized when viewing an ambiguous picture and with respect to the ability to alter or reorganize this percept after preparation. The 74 male volunteer subjects were divided equally into two age groups--65 to 81 years, and 19 to 34 years. The range of formal education was 0 to 19 years for the older group and 7 to 20 years for the younger. The older group was divided into two subgroups based on level of education--those with 12 or more years and those with less than 12 years. The materials used were three photographs of ink drawings of an ambiguous figure, of "my wife" and "my mother-in-law." The data indicated that the older group was less able to reorganize the initial percept. Although both age groups tended to perceive the "wife" initially, the tendency was somewhat greater in the older group. The data also suggested that increased ability to reorganize percepts was related to increased education of the elderly subjects.

12. COGNITIVE PROCESSES IN MATURITY AND OLD AGE. Botwinick, Jack. Springer Publishing Company, New York. 1967.

13. THE RELATIONSHIP BETWEEN AGE AND INFORMATION PROCESSING CAPACITY AND AGE AND CHANNEL CAPACITY OF ADULTS. Carpenter, William Lester. Florida State University, Tallahassee. University Microfilms, Order Number 68-7787, price microfilm $3.00, xerography $7.00. Ed.D.Thesis. 149p. 1967.

This study sought to determine if there is a change in information processing and channel capacity as the human organism grows older, and if this relationship is altered with a change in stimulus complexity and dimensionality of the stimulus presented. With the human organism considered as a communication system, the use of absolute judgments to measure judgmental discrimination accuracy was extended to measure the subjects over a 45 year age range and under simulated classroom conditions. Using visual stimuli, 74 subjects judged size of dark squares on a light background in three tests and the location of the placement of a dot in a grid pattern in two tests. As predicted, performance declined as age increased. In three of the five tests this decline was statistically significant (.05 level); in the other two tests the decline was in the predicted direction. Since the least complex tests were presented first, it was assumed that this high-anxiety state masked the performance of the older subjects in the earlier tests, but as this state faded out older subjects reached their peak performance which was very little if any below that of the younger subjects.

14. THE RELATIONSHIP BETWEEN AGE AND INFORMATION PROCESSING CAPACITY OF ADULTS. Report Number 7. Carpenter, William L. North Carolina University, Raleigh. State University, Department of Agricultural Information. R-7. EDRS Order Number ED 018 763, price MF $0.50, HC $3.60. 70p. April 1968.

Change in information processing and channel capacity with increase in age was studied, and possible altering of this relationship with a change in complexity and dimensionality of the stimulus presented. Visual stimuli were projected on a screen to four groups composed of 74 college graduates ranging in age from 23 to 68 years, in a simulated classroom. Three of five tests were presented to each subject --size of dark squares on light background was judged in three tests, and location of dot placement in a grid pattern in two tests. Absolute judgments were used to measure judgmental discrimination accuracy. Information theory statistics were used for individual test data analysis, and conventional statistics to determine levels of significance of data collected. It was found that performance declined as age increased in three of the five tests, containing the least complex stimulus situation, which was contrary to prediction. It was speculated that a higher anxiety rate was manifested during early tests, and older subjects reached peak performance during the three later tests. All subjects scored higher on the multidimensional stimulus presentations (dot and grid). Other findings showed males outscoring females in all tests.

15. PROGRAMMED INSTRUCTION AS A METHOD OF TEACHING PAIRED ASSOCIATES TO OLDER LEARNERS. Chown, Sheila and others. Reprint from JOURNAL OF GERONTOLOGY; v22 n2. April 1967.

Fifty-six trainee postal sorters aged 20 to 34 and 55 aged 35 to 49 were given 20 village/county associations to learn in 12 minutes from one of two linear programs. Both programs used cumulative-part presentation, but one embodied "discovery" frames and the other demanded straight rote learning. Subjects were tested immediately after the program and again three days later. The older subjects learned and retained more from the "discovery" program than from the rote learning one, but the younger subjects did equally well after either program. No age discrepancies in learning occurred with the "discovery" program but there was a clear age decrement on the rote learning program. It is concluded that the element of discovery enables older subjects to learn associations as well as younger men, but that "discovery" neither helps nor hinders the younger men.

16. RESEARCH ON MENTAL ABILITIES AND AGING. Cohen, Charles S. In ADULT EDUCATION; v12 n3 p165-172, Spring 1962.

17. EDUCATION-THE KEY TO SUCCESSFUL AGING. Crabtree, Arthur P. In ADULT EDUCATION; p157-165, Spring 1967.

18. ACADEMIC SUCCESS OF OLDER PEOPLE. In PSYCHOLOGY IN THE SCHOOLS; v3 n3 p256-258, July 1966. Crosman, Arthur M. and Gustav, Alice.

Data is reported on the college attendance of mature adults. Academic transcripts were examined for all students attending Washington Square College in the spring of 1962, and information was compiled on 457 undergraduates over 30 years old on exact age, type of student (day, evening, or television), number of points completed toward a B.A. degree, and total academic average. A table summarized the data and showed a large percentage of men and more than half the women were part time evening students, few were below C level work, and the points completed toward a degree indicated capability of sustained effort in higher academic work. Among reasons for attending college were - improvement or change of occupation, desire for intellectual stimulation, and prestige of a degree. Results were interpreted as indicating older people can successfully attend college, even though outside responsibilities occupy much of their time.

19. AGE IN RELATION TO PART AND WHOLE LEARNING. Downs, Sylvia. In JOURNAL OF GERONTOLOGY; n20 p479-482 1965.

An experiment was conducted on four groups of trainee postal sorters to examine the relationship between age and progressive part and whole learning methods. The median age of the older groups was 42.5 and of the younger groups 26.5 and 27. The younger group which learned by the progressive part method had significantly higher scores than the younger group which learned by the whole method. There was no significant difference between the two methods for the older groups. It is suggested that the performance difference between young and old individuals using progressive part learning was due to the increased effects with age of interference and unlearning difficulties.

20. CURRENT RESEARCH IN TEST DEVELOPMENT. Background Paper, National Conference on Manpower Training and the Older Worker, Washington, D. C. January 17-19, 1966. Droege, Robert C. 18p. 1966.

The United States Employment Service has been engaging in research on the applicability of existing aptitude tests to older workers. In 2 studies involving about 4000 persons in 5 states, all major aptitudes measured by the General Aptitude Test Battery (GATB) declined with age. Declines were small in general learning and in numerical aptitude, larger (about 20 points between ages 17-72) in spatial and clerical aptitudes, and motor coordination, and greatest (up to 40 points between ages 17-72) in form perception, finger dexterity, and manual dexterity. The onset of decline in various aptitudes ranged from under age 20 (spatial aptitude and form perception) to about 47 (general learning and numerical aptitudes). Research on effects of educational deficiency on test performance are in progress, and studies are proposed to develop a non-reading edition of all 9 GATB aptitudes, to determine the validity of age adjustments for aptitudes in predicting job performance, and to formulate an achievement test of basic literacy skills. The technical appendix includes a table of age groups in the New York study and the 4 state (California, Iowa, Michigan, Pennsylvania) study, and charts of aptitude scores.

21. PERSONALITY CHANGES WITH AGE, THEIR DEPENDENCY ON CONCOMITANT INTELLECTUAL DECLINE. Edwards, Allan E. and Wine, David B. Reprinted from JOURNAL OF GERONTOLOGY; p182-184 April 1963.

Personality and biographical variables were related to intelligence level of 80 males ranging in age from 22-76 years.

22. NEW DIMENSIONS AND A TENTATIVE THEORY. Paper Presented at the Symposium on Learning and Memory, Annual Meeting of the Gerontological

Society, 19th, New York, November 3, 1966. Eisdorfer, Carl.

Studies of learning ability in the aged led to a tentative theory that autonomic and performance factors play a significant role. In a study of the effect of time on learning, older men aged 60 to 80 profited more from longer exposures to the material than did young men aged 20 to 49. With longer exposure the older men's errors of omission, but not of commission, decreased, suggesting that older persons might be learning relatively rapidly but be unable to produce a response on time. In another experiment blood samples were taken and the free fatty acid component was measured as an index of autonomic arousal. The fact that the older people were more highly aroused and remained so longer led to the hypothesis that withholding response by older persons is related to heightened level of stress, that not the faster speed of pacing but the experimental situation itself contributes to the anxiety level. A third experiment designed to reduce environmental stress by gradual familiarization, demonstrated that situational variables produce an effect on learning. Persistent heightened arousal could make learning more difficult for the aging individual causing a vicious spiral of increased stress. Contrary to expectation, however, another test proved the older persons to be stimulus-response learners at slow paces as opposed to insightful, cognitive learners at faster paces.

23. ANALYSIS OF QUICK WORD TEST AS AN ESTIMATE OF ADULT MENTAL ABILITY. Grotelueschen, Arden and Knox, Alan B. Reprinted from JOURNAL OF EDUCATIONAL MEASUREMENT; v4 n3 p169-177. Fall 1967.

The results of the analysis of Quick Word Test (QWT) scores of a sample of adult students in university evening classes indicate that the QWT is a reliable estimate of adult mental ability. Its use is recommended for situations in which the administration of more comprehensive scales would not be practical. Further research is recommended to ascertain the effects of the position of the item within the test on the stability of item difficulty and discrimination. It is assumed that the arrangement of an item in a test may have an effect on the item characteristics, especially for adults without recent experience in an educational activity. Analysis by the authors of sub-sets of as few as 15 QWT items has demonstrated a correlation greater than .60 with the Wechsler Adult Intelligence Scale. This finding suggests the use of a partial scale as a control variable for survey research and other types of studies with adults in which mental ability is relevant but for which more comprehensive scales are impractical.

24. A REVIEW OF PHYSIOLOGICAL AND PSYCHOLOGICAL CHANGES IN AGING AND THEIR IMPLICATIONS FOR TEACHERS OF ADULTS. Hand, Samuel E. Florida State Department of Education, Tallahassee. EDRS Order Number ED 030 799, price MF $0.25, HC $1.70. Bulletin 71G-2. 32p. April 1968.

This review of literature on the aging process points out primary physiological and psychological changes in maturing adults which have implications for teachers of adults. Visual acuity and hearing decline during adult years and there is a general slowing down process of most bodily activities. Teachers should be aware of the need for good illumination, adequate seating arrangements, maintenance of comfortable physcial surroundings, and a slower pace for the adult student. Reports show that although the power to learn is retained in maturing adults, there is a slowing up in the rate at which one can learn. Retention and recall, then, may decline with years, although interest and motivations may be heightened. Teachers of adults should attempt to adjust lessons to the learners' pace capacity; include summaries often; relate activities to the varied life experiences of the students; and be aware of the adult students' length of attention span.

25 A TIME FOR LEARNING. Harvest Years Publishing Co., 104 East 40th Street, New York, New York 10016. 1969.

26. INTRODUCTION TO THE STUDY OF DEVELOPMENT AND AGING IN THE LIFE CYCLE. Havighurst, Robert J. and others. Chapters 1-3 in RELATIONS OF DEVELOPMENT AND AGING. Edited by James E. Birren, published by Charles C. Thomas, Springfield, Ill. 62703. 34p. 1964.

Some longitudinal studies of people have been made but they are often limited by the concepts and methods with which the studies began. Without data from many longitudinal studies, contrasting concepts and methods often are used for different age levels instead of studying human development as a connected span. The individual meets change from within and without throughout his life; changes in early life are more pronounced than later changes. Research on aging observes developmental changes and their effects on the individual, including maturation, learning, illnesses and accidents, and stability and change. Since 1930, the Denver Child Research Council has studied about five or six babies before birth each year, continuing study after birth, with some of the early subjects now adult. More research of this kind is necessary to determine the effects of various childhood health characteristics on later life; many seemingly simple questions about prediction of future conditions from a child's present health are still unanswerable.

27. AGE DIFFERENCES IN FLUID AND CRYSTALLIZED INTELLIGENCE. Horn, John L. and Cattell, Raymond B. In ACTA PSYCHOLOGICA; v26 n2 p107-129 March 1967. 23p. 1967.

The purpose of this study was to describe differences in intellectual functioning associated with aging in adulthood. Estimates of broad factors identified as fluid intelligence, crystallized intelligence, general visualization, speediness, carefulness and fluency were obtained by combining scores on several tests found to define these factors in previous research. A sample of 297 subjects was divided into five age groupings--14-17, 18-20, 21-28, 29-39, and 40-61. Analysis of variance and covariance were carried out on these factors and age groupings, using sex and education, as well as the factors themselves, as covariates. These analyses revealed that (1) the mean level of fluid intelligence was systematically higher for younger adults, (2) the mean level of crystallized intelligence was systematically higher for older adults, (3) the mean for the general visualization function was highest for the grouping 21-28 and the means systematically dropped off on either side of the high value, and (4) no systematic age trends were discernible for the general speediness, carefulness, and fluency factors

28. MENTAL GROWTH AND DECLINE. Hollingsworth, H. L. D. Appleton Company, New York. 1930

29. INTELLIGENCE, WHY IT GROWS, WHY IT DECLINES. Horn, John L. In TRANSACTION; v5 n1 p23-31. November 1967.

Intelligence is of two types, fluid and crystallized, both composed of more elementary mental abilities which can explain much of the person-to-person variation commonly observed in mental processes. Fluid intelligence is defined by such abilities as induction and seeing figural relations (natural wit). Crystallized intelligence is demonstrated by acquired strategies such as verbal comprehension. Mental development requires three processes: (1) anlage function, which provides the physical base for mental growth; (2) acquisition of aids, which involves the use of experience; and (3) concept formation which is imposing categories on the phenomena we experience. Tests that indicate the extent of concepts formed may predict the level of a person's future intellectual development. Because schools give awareness of concepts that first-hand experience may not give, education can play a powerful role in developing intelligence. Yet formal education often does not. Avoidance learning labeling, and lack of opportunity affect development of both kinds of intelligence. The physiological base supporting fluid intelligence begins to decline in the 20's, but acculturation supporting crystallized intelligence continues into old age. Because both work together, evidence indicates the greatest intellectual productivity tends to occur in the 30's and early 40's, although the most creative work is often accomplished earlier.

30. THE OLDER PERSON IN THE FAMILY: CHALLENGES AND CONFLICTS. Jacobs, H. Lee, Editor. Institute of Gerontology, University of Iowa, Iowa City, Iowa. 1965.

31. THE GROWTH AND DECLINE OF INTELLIGENCE: A STUDY OF HOMOGENEOUS POPULATION BETWEEN THE AGES OF TEN AND SIXTY. Jones, H. E. and Conrad, H. S. GENETIC PSYCHOLOGY MONOGRAPH; v13 p233-298. 1933.

32. RESEARCH IN ADULT LEARNING. Knox, A. B. and Sjorgren, D.D. In ADULT EDUCATION; v15 p133-137. 1965.

33. PSYCHOLOGICAL BACKGROUNDS OF ADULT EDUCATION. NOTES AND ESSAYS ON EDUCATION FOR ADULTS, 40. Kuhlen, Raymond G., Editor. Center for the Study of Liberal Education for Adults, Chicago, Illinois. EDRS Order Number ED 027 459, price MF $0.75, HC $7.85. 155p. July 1963.

At the Syracuse University Conference held at Sagamore, New York, and attended by leading adult educators, four papers focused on the latest research in the field of psychology, relevant to adult education. James E. Birren stated that while changes in physiological drive, speed, and perceptual acuity may limit the older individual's learning performance, other factors, such as special motivation, may facilitate it. In general, tests involving perceptual content show decrements with age whereas tests which allow for accumulated experience (such as vocabulary) show increments. And, it may be that the number of years out of school does affect one's expectancy to learn and ability to seek out the crucial elements in a learning situation. Bernice L. Neugarten stated that the development of the ego is, for the first two-thirds of the life span, outward toward the environment; for the last part, inward toward the self. Raymond G. Kuhlen declared that motives may be changed during adulthood if the individual is exposed to a new set of punishment and rewards, or when changing needs must be met. W. J. McKeachie maintained that the adult education teacher must adjust his approach as he sizes up each class and receives feedback from them.

34. DEVELOPMENTAL CHANGES IN MOTIVATION DURING THE ADULT YEARS. Kuhlen, Raymond G. Chapter 13 in RELATIONS OF DEVELOPMENT AND AGING, edited by James E. Birren. Published by Charles C. Thomas, Springfield, Illinois 62703. 38p. 1964.

In many cases, satisfaction of needs or goals results in lack of motivation to seek something similar but more challenging, and the realization that a goal or desire is unattainable results in giving up a desire for it. Status of age, pressures of time and money, physcial change and decline, skill deficits, and "locked in" feelings influence motivation by causing one to adapt his goals to those more within his reach. Needs of growth-expansion are less important in later life as feelings of anxiety and threat increase. Later ages have a reduction in ego-involvement with life; an increase in disengagement, in anxiety, and in negative self concepts; and a decrease in happiness. Economic and social class attitudes play roles in determining perception of aging. There is some evidence that old age adjustment depends largely on a person's own self assessment of whether or not he reached fulfillment in his own life.

35. THE MIND AS TISSUE: TALK OF RATS AND MEN. Lankenau Hospital Staff, Editors. Lankenau Spring Conference Report, Philadelphia, Pennsylvania. 1967.

36. DISCRIMINATION AGAINST THE EDLERLY. Larson, William E. In GERIATRICS; v24 n3 p40-46. March 1969.

37. THE AGED: A CHALLENGE TO EDUCATION. Linton, Thomas E. and Spence, Donald L. In ADULT LEADERSHIP; v12 p261, 262, 270, 280. March 1964.

38. PSYCHOLOGICAL BASES FOR ADULT LEARNING. Lorge, Irving. In TEACHERS COLLEGE RECORD v49 p4-12 1939.

The bases of adult learning--the individual's ability, capacity, and drives -- are reviewed.

39. AGE CHANGES IN MENTAL ORGANIZATION -- A LONGITUDINAL STUDY. McHugh, R. B. and Owens, W. A. In JOURNAL OF GERONTOLOGY; v9 p296-302. 1954.

40. THE CORRELATION OF INTELLIGENCE SCORES AND CHRONOLOGICAL AGE FROM EARLY TO LATER MATURITY. Miles, C. C. and Miles, W. R. In AMERICAN JOURNAL OF PSYCHOLOGY; v44 p44-78. 1932.

41. THE INFLUENCE OF SPEED AND AGE ON INTELLIGENCE SCORES OF ADULTS. Miles, Catherine C. In JOURNAL OF GENETIC PSYCHOLOGY; v10 p208-210. 1934.

42. NATIONAL PILOT INSTITUTE ON THE EDUCATION OF THE AGED. A selected bibliography. January 28 - February 5, 1967. Exeter, New Hampshire. 25p. 1967.

This bibliography lists 62 publications on the social aspects of aging, the aging process, and characteristics of older adults, and after a section listing 33 references on adult education in general, gives 203 specifically on education on and for the aging, including education for leisure and retirement, counseling, social and community services, library and church programs. Eighteen bibliographies are listed, 22 rental films, information on funding of projects, and supplementary reference materials.

43. INTELLIGENCE AND AGE: RETESTING WITH TWENTY-FOUR YEAR INTERVAL. Nisbet, J. D. In BRITISH JOURNAL OF EDUCATIONAL PSYCHOLOGY; v27 p190-198. 1957.

44. PSYCHOTHERAPEUTIC PREJUDICE AGAINST THE ELDERLY. Oberleder, Muriel. In GERIATRIC FOCUS; v4 n17 p1, 5, 6. November 15, 1965.

45. TEACHING ADULTS TO READ. Otto, Wayne and Ford, David. Available from Houghton Mifflin Company, Boston, Massachusetts. 192p. 1967.

This guide presents a variety of materials, methods, and ideas for teaching functionally illiterate adults (with less than Grade 4 reading ability). Emphasis is placed on helping adults to read independently and to attain a level of skill sufficient for everyday reading tasks. The first three chapters deal with the nature of the problem of illiteracy and marginal illiteracy, the economic, domestic, social, and psychological problems that arise when adults return to school. Chapter 4 is largely devoted to 24 basic reading systems accompanied by detailed check lists. The final chapter reviews the sequential development of reading skills, reading inventories and standardized tests, the motivating of students, classroom management, lesson planning, and other facets of program implementation.

46. AGE AND MENTAL ABILITIES: A LONGITUDINAL STUDY. Owens, W. A., Jr. In GENETIC PSYCHOLOGY MONOGRAPH; v48 p3-54. 1953.

47. AGE AND MENTAL ABILITIES: A SECOND FOLLOW-UP. In JOURNAL OF EDUCATIONAL PSYCHOLOGY; v57 n6 p311-325. Owens, W. A. 18p. 1966.

The 96 men, first tested as entering freshmen at Iowa State University in 1919 and again in 1950 with the Army Alpha, were retested in 1961 at an average age of 61. The Army Alpha and Life Experience Inventory were used. The men represented a 75 percent sample of the 127 first retested during 1950. This paper reported the 1950-1961 results and integrated the data of the last 10 years with that of the preceding 30. The decade from age 50 to age 60 was one of relative constancy in mental ability test performance. The apparent trend, which was statistically insignificant, was slightly downward. Contrary to expectation, aging does not seem to have increased either individual or trait differences among the testees of 1961. Clearly, however, major components of the pattern of living and environment of the men have moderated the relationship between age and mental ability.

48. GROWTH AND CHANGE IN ABILITIES AS SHOWN BY TESTS. Pressey, Sidney and Kuhlen, Raymond. In PSYCHOLOGICAL DEVELOPMENT THROUGH THE LIFE SPAN; Harper, New York p70-122. 52p. 1957.

This chapter is concerned with a major contribution of American psychology--the development of means for measuring general ability and the use of these means in furthering the understanding of the nature of abilities.

49. EXTENDED YOUTH: THE PROMISE OF GERONTOLOGY. Prehoda, Robert W. G. P. Putnam's Sons, New York, 1968.

50. VARIATIONS ON A THEME BY THORNDIKE. Rhyne, Dwight C. In ADULT

EDUCATION; v12 n2 p91-97 Winter 1962.

51. EFFECTS OF CHALLENGING AND SUPPORTIVE INSTRUCTIONS ON VERBAL LEARNING IN OLDER PERSONS. Ross, Edith. Columbia Univ., New York, N.Y. University Microfilms, Order Number 67-14,087, price in microfilm $3.00, xerography $3.00. Ph.D.Thesis. 99p. 1967.

Sixty young men between 18 and 26 years of age and 60 within the 65-75 year age range, matched for verbal ability and socioeconomic status, were given two paired associate learning tasks differing in level of difficulty under neutral, supportive, and challenging instructions. Older persons revealed a greater performance decrement on the more difficult task than did the younger group; they did least well on the acquisition phase of learning under challenging instructions and best under the supportive treatment. No differential effects of instructions on relearning was found. The difference between young and old in number of trials needed to master the material under the supportive condition was significantly smaller than under the challenging one. The effects of feelings of inadequacy aroused by the ego-involving instructions on the difficult task were discussed in relation to their interference with the performance of the older persons.

52. EFFECTS OF CHALLENGING AND SUPPORTIVE INSTRUCTIONS ON VERBAL LEARNING IN OLDER PERSONS. Ross, Edith. In JOURNAL OF EDUCATIONAL PSYCHOLOGY; v59 n4 p261-6 August 1968.

Abstract cited above.

53. THE DIFFERENTIATIVE EFFECTS OF AGE UPON HUMAN LEARNING. Ruch, Floyd L. In JOURNAL OF GENERAL PSYCHOLOGY; v11 p261-286. 26p. 1934.

The learning abilities of three groups of forty individuals aged 12-17 years, 34-59 years, and 60-82 years have been studied. The subjects in the three age groups were comparable with original ability. Two motor tasks and three types of verbal learning were employed. The hypothesis that the older subjects would show a greater deficit in the learning which required reorganization of previously formed habits, while that learning which was neither interfered with nor aided by old habits would show an intermediate degree of deficit was supported by the experiments.

54. AGE AND MENTAL ABILITY IN SUPERIOR MEN. Sward, Keith. In AMERICAN JOURNAL OF PSYCHOLOGY; v58 p443-479. 37p. 1945.

Two groups of university faculty members, aged 25-35 and over 60 were paired by professional occupation and tested with intelligence scales constructed for this experiment.

55. COGNITIVE AND MOTIVATIONAL FACTORS IN AGING AND DISENGAGEMENT. Back, Kurt W. and Gergen, Kenneth F. In SOCIAL ASPECTS OF AGING, edited by Ida H. Simpson and John C. McKinney. Duke University Press, Durham, North Carolina. p289-295. 1966. EDRS Order Number ED 017 795, price MF $0.25, HC $0.45. 7p. 1966.

Previous theories of the aging process have derived behavior as necessary functions of social or individual variables. An intermediate theory, personal orientation, allows the individual the possibility of choice within his capacities and social situation. This theory is based on a disengagement theory of aging that suggests that a person withdraws socially and psychologically from his environment and that these processes are intrinsically determined. The present theory considers the individual's awareness of his physical and social world and the restriction of life space and emotional decline as two basically independent processes occurring over the same span of time. Successful disengagement is not intrinsically necessary, but an equilibrium condition that most of the population reaches. Previous theories have overemphasized physiological and psychological factors of aging. A method of secondary analysis of survey data will be used for exploring the processes of aging.

56. A CROSS-SEQUENTIAL STUDY OF AGE CHANGES IN COGNITIVE BEHAVIOR. Schaie, K. Warner and Strother, Charles R. In PSYCHOLOGICAL BULLETIN; v70 n6 p671-80. December 1968.

Previous cross-sectional and longitudinal studies of age changes over the adult life span have reported contradictory age gradients. The apparent contradiction was assessed with a new research design, the cross-sequential method, which involves the repeated measurement of members of a cross-sectional sample. The SRA Primary Mental Abilities Test and Schaie's Test of Behavioral Rigidity were administered to a stratified random sample of 500 subjects with quotas of 25 men and 25 women in each five-year age interval from 20 to 70 years. Seven years later, 302 subjects were retested. Significant cross-sectional age changes were found for all variables studied, but longitudinal age changes occurred for all cohorts only for those variables where response speed was of importance. Age changes over time appeared to be smaller than the differences between cohorts, with the steep textbook age gradients representing only the effects of increased environmental opportunity and/or genetic changes in the species. Limitations in the study were evaluated.

57. ADULT LEARNING. Thorndike, E. L. Macmillan Company, New York 1928.

58. ALTERNATIVE PARTICIPATORY RESPONSES TO AGING. Videbeck, Richard and Knox, Alan B. Chapter Three in OLDER PEOPLE AND THEIR SOCIAL WORLD, edited by Arnold M. Ross and Warren A. Peterson. Available from F. A. Davis Co., 1914 Cherry Street, Philadelphia, Pennsylvania 19103. 12p. 1965.

This paper reports on a study of the effect of aging on various kinds of social participation and the relationship between the level of participation of older adults (age 50 through 69) and their earlier participation. The data collected during interviews with 1,500 adults of Nebraska in 1961-62 were used. Seven participation variables such as church activity, number of voluntary associations, and time spent reading magazines, were employed. Findings utilized respondents' own estimations of how active they were at the time of the interview as compared with five years earlier. The relationships among age, change in life circumstances (residence change, widowhood, retirement, and job change), and selected types of participation were examined. Degree of social participation was correlated positively with socioeconomic status and not significantly with community size, except in very small towns. Conclusions were that social activity characteristics of older persons are identical with the characteristics of active persons in younger age categories and that generally how active one is depends upon individual subjective factors as well as upon status within the life cycle.

59. THE MEASUREMENT AND APPRAISAL OF ADULT INTELLIGENCE. Fourth Edition. Wechsler, David. Williams & Wilkins Co., Baltimore. 1958.

60. A STUDY OF THE RELATIONSHIP BETWEEN LIFELONG LEARNING AND ADJUSTMENT OF OLDER PEOPLE. Wolfe, Lloyd M. Michigan University, Ann Arbor, Ph.D.Thesis. University Microfilms, Order Number 63-5035, price in microfilm $2.75, xerography $5.80. 119p. 1963.

An investigation was made to discover a possible relationship between good adjustment in later years and learning during adulthood. An attitude scale (a standardized measure of adjustment), was administered to 251 men and women over 65 years, from which the highest and lowest 50 scores were selected for the study. The 100 participants were interviewed as to their adult activities which provided a learning experience--educational reading, adult education classes, or clubs with some educational program. Good adjustment was significantly related to activities selected as educational and to present sources of income and grade completed. Well adjusted persons had incomes from private sources and had higher levels of formal education. Continued learning was not related to source of income, or school grade completed among those who had eight grades or less completed. More of the well adjusted in the limited formal education group had engaged in selected learning activities. For those completing nine years or more of school, there was no difference between adjustment and learning. It was concluded that a relationship between adjustment of these older people and continued learning during adult years was indicated.

61. DIFFERENCES BETWEEN ADULTS AND YOUTH AFFECTING LEARNING. Zahn, Jane C. In ADULT EDUCATION; v17 n2 p67-77 Winter 1967.

In cross-sectional studies comparing intelligence in adults with that in youth, decline in intelligence is observed as age increases. More meaningful comparisons, in longitudinal studies, show no decrease in intelligence, and, in some cases, an increase. When learning ability was measured without strict time limits, it did not decline between 20 and 60 years of age. Performance on tests varies, older persons doing better on vocabulary tests; the number of years of formal schooling influences performance, as do health and physical differences. It is more difficult to change the perceptions of an adult than of a child because the adult has had more prior experience. However, if adults learned how to learn when young and continued their learning in adulthood, the habit of learning is so strong and the strategy of learning so well developed that learning new material will be even easier for them than for children. Methods of teaching the young cannot be transferred without change to teaching adults; teachers will need patience to allow for the extra time and extra teaching skill necessary.

62. FACTORS RELATED TO TEST PERFORMANCE; A LONGITUDINAL ANALYSIS. Zaman, Mir F. Unpublished Ph.D. dissertation. University of Iowa, Iowa City 1964.

## CHAPTER III

# EDUCATION FOR AGING IN THE EDUCATIONAL SYSTEM

by

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The public schools and institutions of higher education in this country belong to all the people and, as such, they have a responsibility for meeting the educational needs and interests of all ages, including those of older people. The old idea that public education must be concerned solely with the mental development of children and youth, with only minimum interest in the expansive period of adulthood, and virtually no consideration for the older years, is rapidly becoming obsolete. Moreover, the conviction has been growing for sometime that education for aging does not represent simply a peripheral humanitarian interest on the part of our educational institutions; it is, indeed, a matter of enlightened self-interest (20).

Education for aging has been ill-conceived, fragmentary, and uncoordinated, with a history reaching back less than two decades. From the standpoint of offerings in educational institutions, the main emphasis has been on discrete, unrelated courses, with a few recreational novelties interspersed, for middle-aged and older adults. Offerings at the elementary and secondary school levels have been insignificant. This is largely due to the fact that educators, including leaders in the field of aging, have not fully accepted the ramifications of the life span developmental psychology concept in education, which, of course, includes education for aging at all age levels (3, 8, 9, 19, 22, 34, 39). In fact, as incongruous and incredible as it may seem, in all the major conferences on aging (state, regional, and national) over the past eight years the subject with which we are here concerned received extensive treatment in only one and minimal consideration in two others (5, 6, 35).

## A. THE NECESSITY FOR AN EARLY BEGINNING ON EDUCATION FOR AGING AND OLD AGE

Many studies in recent years have shown that the most auspicious time for beginning a program of education for aging is the attitude-forming period of childhood and youth, because it has been found that components of these early attitudes are values and stereotypes which, having become totally absorbed by late childhood, tend to persist throughout life (11, 16, 17, 25, 26, 27, 28, 29, 31, 32).

Despite important advances in the field of aging in recent years, the task of breaking away from the traditional negativism about aging and old age in our culture is still not an easy one. One study at the Age Center of New England indicates that children begin forming concepts about "age" as early as three or four, and that by six a majority show a definite bias against old people (4). Other research, conducted by Tuckman and Lorge at Columbia University, showed that by age twelve the average youngster has acquired all the negative attitudes toward aging and old age held by most adults. At the graduate school level, also, a semester psychology-of-aging course made little change in basic negative attitudes about the aged (32, 38).

In all known societies, including our own, individuals tend to be "graded" or "placed" according to behavioral expectations" for each age level, from childhood up through old age. These "assignments" of "appropriate behavior" are made by society and, in turn, accepted by individuals in accordance with their respective "grade status." These "social expectations" tend to militate against even a limited consideration of differences and are reinforced in many ways -- by songs, jokes, popular expressions, slogans, taboos, literary illusions, and devastating innuendoes, such as "old crock," "has-been," "old fogy," "weak-minded," and "old fool."

Under this pattern of social judgments and cultural assignments, the individual's "rights" and "duties" -- in short, his status -- becomes more a function of what society "expects" of him than of how he objectively "feels" about the matter. In our society, for example, "youth" is associated with physical and mental vigor, bizarre dress, speed, and beauty; "old age," with decrement of physical and mental powers, unattractiveness, reflection, conservatism, and inflexibility. Younger persons are adjudged to be on the "wild side" -- a bit reckless, boisterous, thoughtless, and irresponsible. Older persons, on the other hand, are "expected" to be reserved, quiet, dependable, and dignified, with little interest in play and the "lighter side" of things. It is "right" for youth to marry, but still mostly "out of bounds," "improper," or perhaps even immoral for oldsters. Such a negativistic outlook places "aging" in a damagingly wrong perspective, and these sterotypes do tend to become interiorized very early, thus adding to the urgency for serious examination of the semantic problem involved, of striving toward a more scientific frame of reference for the sake of our children and youth (19, 20).

A closer look at this system of "age grading" and ways in which it may be revised for the good of all should be a crucially important concern of curricula makers for those in the formative years. The logical point to begin on such a project would be a closer scrutiny of the terminology used by leaders themselves in the field of aging. Frequently one hears a leader remark, "I am working with the aging," when he really means that he is working with "older adults." Likewise, the terms, "aging" and "aged" should not be used synonymously, since "aging," developmentally conceived, actually begins with the fertilization of the ovum and "aged" applies only to life's closing years.

Another variation of the subtle and misleading use of words in the area of aging is the apparently consistent practice by even recognized authorities of using the term "aged" when referring to the elderly, as a one-syllabled, rather than a two-syllabled, word, as it is in Webster's dictionary -- i.e., they say "aged," when they really mean "ā'-ged." Only the latter applies to the elderly alone, while the former may be used in speaking of any age level. A still more damaging misuse of words in this area is the habit of many otherwise knowledgeable persons of equating the terms "aged" and "senile," whereas we now know that senility is not necessarily a function of chronological age, as such, but of many things. Many aged people are not senile, nor are they bound to become so.

All of this may appear to some to be "quibbling" over words, but in our dealings with children and youth it is vital, because words and slogans are conveyors of concepts, stimulators of emotions, and determiners of outlook and conduct, much more certainly in the tender years than in maturity (30).

It is evident, therefore, that we need to develop more precise definitions of terms and more consistency in their use, along with scientifically based educational content, methods, and procedures, in this emerging new field -- the scientific study of aging (19). Today's children and youth are so accustomed to space age imagery, scientific literature, test tube thinking, and uncensored television close-ups on social problems confronting our society, even including the continuing traumatic predicament of the aged, that maudlin, condescending and evasive treatment of the subject of aging and old age can have no constructive meaning for them. It can, in fact, only serve to reinforce negative attitudes which tend to be well set even prior to the advent of formal schooling in the lives of most children (4).

As James E. Birren has recently pointed out, one of the more significant considerations in this broader educational effort is that the educational system, especially in this country, may need to make some basic adjustments in order to keep in step with the faster growth rates of children. This is a factor which can have considerable importance, especially if psychological correlations exist with the trends in increased height and weight over the past century. For example, the age of menarche in the United States dropped one and one-half years in the 50-year period -- 1905 to 1955. Similar trends have been indicated in most other western nations. In fact, the overall decline shows a trend of about four months per decade from 1830 to 1960 -- approximately 4.3 years in the 130 year period (3).

Coupled with this precosity in physical development among our youth is the vastly increased knowledge possessed by the younger generation today, as compared with any in the past. Even children in the eighth and nineth grades know more physics, chemistry, mathematics, and geography than most adults, and the knowledge acquired by the elderly in previous decades is largely obsolete. All of this means that education for aging, if it is to make a positive difference in the lives of the younger generation, must be cast in a scientific frame of reference as well as being initiated as early as possible (3, 36).

## B. CURRENT DEVELOPMENTS IN EDUCATION FOR AGING IN PUBLIC SCHOOLS -- KINDERGARTEN THROUGH TWELFTH GRADE

If education is to be viewed as a resource for meeting the demands of successive social roles and developmental tasks in the lives of individuals irrespective of age, as many educators now contend, we will need to broaden the scope of our educational planning to include education for aging. This new emphasis in education, as we have learned to stress in the area of family life education, must be seen in the perspective of the developmental process, beginning in elementary school with kindergarten and proceeding, with varying emphasis, through high school and beyond (4, 8, 12, 13).

At the elementary school level ideas about aging and old age should be taught, experienced, and absorbed, not so much as formal subject matter as constituting a quality, a coloring, a slanting of the daily learning process. This can best be done through songs, stories, films, art, selected pictures, family-school projects, field trips, and consistent analyses of experiences of pupils and teachers. It may also emerge naturally and normally as an element in any subject matter or teaching situation, from show-and-tell with the kindergartner, reading interests in the primary and middle grades, to geography, history, literature, beginning family living and home economic courses, and mathematics in junior high. Apropos of adhering to this point of view at the junior high school level, an important emphasis on education for aging might well be made an integral part of the discussion of the developmental concept in relation to physical changes and expanding relationships of pre-adolescent and early adolescent and early adolescent youth (3, 22).

At the senior high school level, education for aging should be more formalized, as in a special unit on aging incorporated in any one of a variety of courses. In keeping with the idea of progressive introduction of concepts about aging, full courses on aging would be reserved for college and university years, at which time more extensive personal and professional interest are involved (19, 22, 24).

What is envisioned in this informal approach, aside from inculcating a more positive conception of aging and old age in the so-called "formative years," is to aid in the establishment of interest in a wider variety of constructive life involvements which will carry over into the later years. Considerable attention has been devoted in recent research to what are called "early life correlates of late life characteristics" (3). This is simply another way of saying that regardless of what we do as individuals the experiences of early and late life are tied together for good or ill. A major purpose, therefore, in urging the inclusion of some emphasis on education for aging in early school experience is to make sure that the rising generation willreach their older years still pursuing things that have been of absorbing interest throughout their earlier years and in such a way that they will not be overtaken by vegetative existence, and that their contribution to society ends only with death (19).

An excellent example of what is here meant by the informal and innovative approach to education for aging for young children was provided by one of my students in a course titled "Societal Aspects of Aging." Since this student had completed her practice teaching requirement during the preceding semester and whereas she expected to receive her B.S. degree in education the following June, along with a certificate for teaching at the primary school level, I gave her an appropriate class assignment, namely, work on plans for developing positive attitudes toward aging in children at the kindergarten level (37).

In the preparation of her written report this student was asked to do four things: 1) to look into research done in recent years on attitudes of children toward aging and old age; 2) to evaluate available story material, pcitures and project reports for use with kindergarteners; 3) to develop, on the basis of her findings and her won experience, a typical lesson plan; and 4) to draw some conclusions as to possibilities and helps needed in education for aging at beginning school level.

As was anticipated, this aspiring kindergarten teacher did find some research reports related to her area, most of which have been referred to elsewhere in this chapter, but very little consideration of education for aging, as such, at the kindergarten level (40). She also found very few childrens books which she considered constructive, in the sense that they did not present aging and old age as misfortune and the elderly as objects of pity. However, there were some acceptable-to-excellent story books having to do with aging which were turned up in this investigation (22, 37).

The kindergarten teacher's sample lesson plan was prefaced by the statement of three objectives: 1) contribution to the development of the concept of time in beginning school children; 2) presentation of a positive image of older people; and 3) involvement of the children in responses concerning their relationships with older persons in their own families and neighborhoods.

The lesson, as such, approximately twenty minutes in length, was built around a story, Grandma's Holidays, a 1963 publication by Doris Adelberg (1). It was recommended that preceding the reading of the story aloud to the children some questions might be raised about grandmothers -- who they are, where they live, what they do, how often grandchildren see them, etc. The story, which is then read to the children, is told through the eyes of a granddaughter who sees her grandmother as an active, warm and understanding person, who has time, energy and love for her every day, but especially on holidays throughout the year. A strong bond of affection exists between the two, due primarily to the fact that they are able to interact and to enjoy many activities together as persons, rather than as representatives of radically different age groups. By progresssing through the yearly holidays and their relationship to life the story teaches the concept of time; it also presents an image of the role and worth of the older person which is far superior to that which is reflected in the culture generally.

This story period is concluded with further discussion and a suggestion to the children that they think about their grandmothers and other older people until they come back the next day for the "show and tell" time, when they can talk some more about grandmothers. Then it is suggested that later in the week all may want to work together, as a class, on writing some stories about what they have been thinking about grandmothers.

Perhaps this illustration will suffice to show the type of approach to education for aging which, though informal and largely unstructured, is, with the necessary adjustments at various grade levels, most desirable for children up to junior high age. In junior and senior high schools various regular courses can be utilized as vehicles for some emphasis on education for aging.

To this writer's knowledge, the first attempt at presenting the study of aging in a scientific and academically acceptable manner to high school youth was initiated in North Dakota in 1962. In the summer of that year I was invited to serve as guest lecturer and resource person for the Annual Dakota Homemaking Teachers Conference and Workshop, held at North Dakota State University. As part of my assignment there I presented the first draft of a unit of study on aging for high school youth, titled "Youth Looks at Aging." Since its publication by the University of Iowa in 1964, and the appearance of a revised and enlarged edition in 1969, this unit has been utilized in some way by approximately 300 school systems and a growing number of colleges across the country.

The purpose of this unit, as stated in the revised edition (23) is "to investigate aging in the human area, in relation to its nature, personal implications, human relationship problems involved, and the challenges for life enrichment which it presents." This stresses a positive concept of human aging and places the subject in a scientific frame of reference. Reports which have come to me over the past seven years indicate that youth like this approach to the subject of aging and old age.

The unit, built around 18 major questions which youth have asked concerning various aspects of aging, has been designed as a teacher's guide, and is intended as a three or four week learning venture, to be used in connection with such courses as personal and family living, applied psychology, homemaking, home economics, and American social problems. Two aspects of this publication not covered in the earlier edition, but which should become of vital concern to youth, namely, the social security system and its implication for all ages, and early retirement planning, are now covered in the new edition.

In this chapter we have been primarily concerned with setting forth some emerging concepts and the framework which teachers at the various levels are beginning to utilize in the establishment of content, methods, and procedures in education for aging. The two major hurdles impeding the progress of such a program -- lack of formal training for teachers and administrative accommodation -- will be surmounted in time. While this wider view of education for aging, as beginning with the earliest school years and extending on through life, was not mentioned only a few years ago it is now beginning to receive significant attention in educational institutions and communities (22).

## C. FORMAL OPPORTUNITIES FOR ADULTS IN THE STUDY OF THE AGING PROCESS, THROUGH COLLEGE AND UNIVERSITY ACADEMIC OFFERINGS -- BIOLOGICAL, PSYCHOLOGICAL, AND SOCIOLOGICAL

During the forty years prior to the middle of this century public attention and educational interest were centered primarily on children and youth, to the almost total oversight of the middle and later years (24). But, beginning about 1955, some interest was focused on the problems of aging, in relation to the second half of life, without any noticeable lessening of interest in the welfare of children and youth (2, 4).

While representing an encouraging trend, the growth of this interest was slow over the next several years. For example, in 1961 this writer completed a survey of education for aging in public school adult education programs in a representative sample of 813 public school systems in the United States. Of the 523 school systems supplying data, only 86 reproted a variety of courses for middle-aged and older adults. Moreover, the majority of these courses had been launched less than a decade before, and about fifty percent within the previous six years. The content of such courses had to do primarily with arts and crafts, current events and some study of languages. Here, also, no serious consideration of aging as a developmental process was included (18).

There is increasing evidence, however, that this situation is changing. A case in point is what happened in one Ohio community. Assuming that educational institutions needed help in learning what activities would attract older adults, if offered, two adult educators, Andrew Hendrickson and Robert E. Barnes, at The Ohio State University completed a study entitled, "The Role of Colleges and Universities in the Education of the Aged," based on an area random sample of persons 65 and over in the population of Columbus, Ohio. They were interested in finding out for what activities older persons would make a trip to a campus, which ones they would attend only if offered at a neighborhood center, and which ones they would prefer to participate in by radio or television. The response was gratifying. On the basis of the findings from this study they concluded that not only colleges and universities should take seriously their responsibilities to serve the educational needs of older persons, along with those of other age groups, but that public schools should examine the data in this report to see what they can appropriately offer to older citizens, both in activities combining all age groups and those designed for older adults alone (14, 15).

Full courses on the subject of aging are feasible at the junior college and college levels, and it is encouraging to note that these are already multiplying across the country. At least one college, Mt. Angel, in Oregon, has established a bachelor's degree program in gerontology. One college in Missouri, Culver-Stockton, has had a three-hour course in gerontology (credit applied in either psychology or sociology) for about eight years. Several other colleges have informed us within the past year that they are offering for the first time courses in aging and would like help with content building. Moreover, a large number of universities now offer a variety of courses in aging. Some, such as Duke, UCLA, Western Reserve, Penn State, Minnesota, Pennsylvania, the Universities of Michigan, Chicago, Syracuse, Brandeis, Southern California, and Washington University, St. Louis, have Ph.D. programs emphasizing aging (30).

At the University of Iowa we now offer, through the Institute of Gerontology, three graduate level courses -- "Biological and Psychological Aspects of Aging," "Societal Aspects of Aging," and a seminar "Selected Problems in Aging," or a total of eight credit hours. An increasing number of middle aged and older adults are enrolling in these courses, along with younger students, in order to improve themselves or to prepare for a second career, or both. Still other courses, related to the subject of aging, are being offered in several other departments of the same university.

There is also some planning under way to provide more educational opportunities for older adults at several college centers. Special conferences dealing more extensively with this matter have been held at various places across the country. In some state educational institutions persons over 65 years of age are offered free tuition for academic work (credit or non-credit) of their choice. These developments chart the course which education for aging, in the framework of public school adult education, college and university programs, is apt to take in the immediate future (7, 10, 20, 21, 30, 33).

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# CHAPTER IV

# INFORMAL PROGRAMS IN EDUCATION FOR AGING

by

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Informal programs in education for the aging include programs of an educational nature sponsored by churches, clubs, fraternal groups, community organizations, public schools, colleges, universities, extension programs in rural areas, senior centers, and educational programs in congregate and domiciliary homes. Education can be a secondary aim in some groups where fellowship or other specific needs are primary.

Informal educational programs for older adults are being developed as sponsoring groups seek to discover the real educational needs of older persons. The older adult is involved in a sharing process whereby he can help develop needed programs, give leadership in carrying through, and become actively involved as a learner.

Informal educational programs have been developed to assist men and women from middle age and up to find self-fulfillment and satisfaction wherein they function as an integrated whole. The older person is helped to discover his greatest potential within the physical and social framework of his life.

Abstracts of research and documented information give evidence of the development of needed educational programs for older adults. These educational programs are directed toward the use of leisure time, retraining the older person for economic and cultural advantage, programs to assist the jobless adult, and the disadvantaged older worker. Educational programs developed to help meet these needs are supported by studies concerning the learning abilities and characteristics of older adults, motivational factors for learning, felt and real educational needs, psychological development through the life span, and the problems associated with learning in the years past forty.

The purposes of educational programs for older adults are essentially the same for all age groups. The individual needs to know how to use time in terms of skills and interests. He needs to know and understand the world around him. He needs to make a contribution to the general welfare and remain socially useful. The Planning Committee on Education for the 1961 White House Conference on Aging made the following definitive statement.

> "Education for Aging is related to each aspect of the Aging and is part of a lifelong learning process. Education for everyone about aging will influence community attitudes and action with respect to aging problems. Education for older people enables those who need and want educational activities to enrich their lives and continue their usefulness in a democratic society. Older people can make contributions to the education of others."

Increased leisure is providing opportunities for the most important job of education, that of creating an informed and participating citizenry (9).

## A. SPECIAL COURSES AND PROGRAMS FOR MIDDLE-AGED AND OLDER ADULTS SPONSORED BY ADULT EDUCATION DEPARTMENTS IN PUBLIC SCHOOLS AND COMMUNITY COLLEGES

There is a growing number of cities and states where public school programs of adult education are providing opportunities in continuing education designed for its older men and women. New York State discovered some years ago, from a random sampling of those enrolled in adult education classes that fewer than 1.5% of the group was made up of persons 60 years of age and over. To encourage greater participation in educational programs by older adults, New York State, through its Education Department, added a staff member to the Division of Continuing Education to promote education for aging, to develop curriculum materials, and to do training. As a result, classes for retirees are being offered in over 100 public school programs of adult education. An effort is made to offer these classes at a time and place convenient to the needs of older persons and are without tuition costs. Education for aging through public school programs is to be found in other states such as Florida, California, and Kentucky.

Hendrickson and Barnes have made a study of THE ROLE OF COLLEGES AND UNIVERSITIES IN THE EDUCATION OF THE AGED (15). This study seeks to discover the educational needs of older persons and which of these needs could be served by activities held on a university campus, neighborhood center, radio, or television. It has been shown that the educational needs of older adults have a number of variables related to the area surveyed. In Tennessee it was found that over one-half of the area residents surveyed were not high school graduates and that many adults desired more educational opportunities offered through the public schools (25). A review of educational programs available to older adults in California's Public Adult Education Program revealed that the older adults are more interested in learning of an aesthetic nature. They have discovered problems such as transportation, facilities, staffing, and budgets, related to older adults and public school educational programs.

Title I of the Higher Education Act of 1965 assisted some colleges and universities in developing educational programs for older adults. The State University of New York developed three noncredit daytime programs in education for community service (41). Requests for information concerning this project came from many organizations and individuals. There are possibly many older adults who continue learning in specified areas through correspondence study. During 1968 at least 4,782,961 persons in the United States were studying in all types of institutions through correspondence study. It could be assumed that a number of these were older adults (53).

Public school adult education programs which involve older adults concern pre-retirement courses, community problems, world affairs, languages, consumer education, health education, and cultural subjects. Refresher driver training courses are now being offered for older adults as they continue to remain mobile.

## B. THE ROLE OF CLUBS, SENIOR CENTERS, CIVIC AND OTHER COMMUNITY ORGANIZATIONS IN EDUCATIONAL PROGRAMS FOR OLDER ADULTS, INCLUDING RETIREMENT EDUCATION

Education designed for older adults is often integrated into another program that has a broader purpose, such as clubs and centers for older persons. Such programs are sufficiently flexible to accommodate the interest and needs of the individuals within the group.

There are materials available to give guidance to clubs, centers, and institutions in developing such educational programs (12, 55, 56). Wientge suggests a model for continuing education for adults which could serve as a means of giving direction to community organizations seeking to project programs which help meet needs as life continues. The continuum goes from finding a mate, home, and job (20s and under); to career and family development (ages 30-39); to status maintenance and enhancement (ages 40-49); to holding on and looking ahead (ages 50-59); to career termination and retirement planning (ages 60-69); and to living in retirement (age 70 and beyond) (13). Clubs and other community organizations are developing educational programs which cross these lines of demarkation although they most often tend to speak of needs of fulfillment for every age sector--many times through programs concerned with religion, politics, citizenship, and general knowledge. Such classes generally operate throughout the year, enabling individuals to enroll whenever they desire. In some community organizations the educational impact comes about through a process of serendipity.

Federal and state involvement through financial assistance and professional guidance has stimulated local community involvement in programs of education for aging. The National Council on Aging has published a catalogue of federal programs, foundations, trusts, and voluntary agencies that assist communities and individuals in meeting the needs of aging (20). The New York State Education Department has prepared a Leader's Discussion Guide to be used in conjunction with 20 films. These films seek to show how active retirees can continue to play an important role in the ongoing life of the community (4).

Many senior centers have been established since funds have been made available through Title III of the Older Americans Act of 1965. These centers have drawn members from the lower income categories of the aging population: widowed, over 70 years of age, and those who have little education. The personnel operating these centers have been unable to interest their participants in adult education courses (29).

Rose Mary Pattison observes that community centers can provide educational activities as shown in the Salzburg Discussions by participants from Austria, England, and Czechoslovakia (38).

Attention is being shown in recruitment and training of personnel who have responsibility for developing community programs of an educational nature for the older adult (40, 46). The National Pilot Institute on the Education of the Aged held at Exeter, New Hampshire in 1967, illustrated how different local, state, and national organizations could share their knowledge and concern in developing programs of education for aging. This institute also compiled a detailed bibliography related to education on and for the aging (31).

With the growth of congregate and domiciliary homes for the aging, research is emerging as to the importance of adult education for their clientele. Mason has made a study of the effect of a group discussion program in a home for the aged on the behavior patterns of the participants (54).

King sought to identify the educational needs of older adults living in three congregate facilities in Indiana (55).

## C. JOB RETRAINING OPPORTUNITIES FOR OLDER ADULTS -- FEDERAL, STATE AND LOCAL

Some educational programs for older adults have as a major objective, that of helping the retiree find supplemental income. This also involves problems of retraining for the pre-retiree who must find employment. These programs are frequently in the nature of short-term training.

Some researchers feel that previous evaluations of adult learning have not realistically appraised the older adult's ability, since laboratory training is artificial, tends to reduce confidence, and requires the older subject to adopt a form of learning with which he is unfamiliar (19). The British Broadcasting Corporation in a series of broadcasts in the Autumn of 1967 discussed problems of middle age which influence a person's ability for learning and thus retraining (24). A survey was presented regarding employment for older workers for the Organization for Economic Cooperation and Development in Paris, France. This survey dealing with scientific knowledge on age changes in human capacities, especially in learning ability and adaptability, describes various methods used to train workers over 40. Findings showed that, if the setting and methods used were adopted to changing capacities and needs, learning and training were possible even in late maturity (39).

Tavernier says that successful retraining schemes all over Great Britain refute the myth that older workers cannot be retrained in industry. Care must be taken in the choice of training techniques, and in modifying conditions to help those who are unaccustomed to industry to adjust to its pace (43). Belbin suggests that note should be made of the social and psychological problems in adult training and retraining as well as the instructional methods. Paper-and-pencil techniques are inadequate for the selection of older workers for retraining. Certain psychological difficulties such as pacing, short-term memory and interference factors, and unlearning must be understood before one can teach an older person. It is better to train people in groups and to move them to development areas in groups (45).

The job type for which adults are being trained or retrained helps define method and procedure. Success in training plumbers, pipefitters, and sprinkler fitters in the construction industry has shown the need for short, practical courses, visual aids, competent instructors, and immediate application of skills (47). Many retrained adults are lost because of poor rehabilitation, counseling, or induction into the job (45). In ten years of experimental work in the steel industry, on-the-job training has proved most practical and effective for retraining supervisors, operators, and maintenance men. Research on adult learning at Duke University has suggested that a learning deficit is not truly a deficit of learning but of performance and recommends that retraining be a routine part of work in order to minimize the stress of the learning situation (47).

Some effort has been made in the area of home study courses in retraining older workers (7, 52). In a program to retrain 442 boiler operators and coal preparation officers, most of them trained by home study courses, it was shown that the older men preferred home study because they did not have to take notes. Many of them had problems with concentration, but found that working at their own pace and in complete privacy balanced the difficulty (2).

Reports on international, national, state, and local conferences on aging present facts concerning training and retraining the older worker. Belbin in a presentation before the International Congress of Gerontology in Vienna in 1966 stated that serious problems exist in retraining the older worker, but where an appropriate method of training can be developed , the older trainee can achieve results comparable with those of their younger colleagues. Specific requirements of the middle-aged learners include long and uninterrupted learning sessions, greater consolidation of learning before new skills are attempted, accurate response and rapid feedback during learning, self-structured learning programs and avoidance of competition, and active mental participation during learning (learning by discovery rather than by role) (18). An International Management Seminar held in London in 1964 provided a forum for employers to discuss their practical experience with special techniques of job redesign and retraining for older workers (30). A report of the Organization for Economic Cooperation and Development concerning retraining programs in Great Britain, France, and Sweden makes the following observations. Scientific research done in England has provided evidence that it is sound public policy to invest in training of older persons and specially-designed training for them is very effective. The results of two studies demonstrate an activity method of learning is superior to memorization, and when inference or deduction is introduced into programmed and activity learning, success is greater than by either method, as well as by memorization. Information resulting from these studies is being applied in experimental projects in five countries (32).

The PROCEEDINGS OF THE NATIONAL CONFERENCE ON MANPOWER TRAINING AND THE OLDER WORKER held in Washington, D.C. in 1966 includes important information concerning community action on older worker training and employment, motivating the hard-core unemployed, selection, counseling, basic education, and employment services (3, 8, 11). The hard-core unemployed is dealt with by Quirk, Sheehan, Cain,and Somers. To enable hard-core unemployed and poverty groups to become self supporting, federal retraining programs in the last few years have concentrated in aiding the disadvantaged and others with low income among the unemployed (10).

A local project for retraining older adults for employment in community service was sponsored in Nashville, Tennessee from 1963 to 1965. Thane and Sebastian report that this project sought to demonstrate the capabilities of older adults to begin new careers as leaders in community services. Certain biographical data and personality traits were identified as reliable predictors of satisfactory performance in community service. The project also confirmed the existence of great latent interest among older adults in entering community service and stimulated several senior centers, mental hospitals, institutions, clubs for older people, and school departments to consider older adults as potential personnel (16). The John F. Kennedy Service Center in Charlestown, Massachusetts was set up to help older workers find employment and it coordinates health, education, employment, welfare services, and legal aid. The average applicant at the center is 45 or over, with few job opportunities, poor morale, and lack of confidence; he has been forced into retirement prematurely and has a restrictive pension and insurance plan (49).

An annotated bibliography concerning training and retraining the older worker has been prepared by Kreps and Laws (17).

## D. LIFETIME LEARNING PROGRAMS

Arthur Crabtree makes an appeal for a concern in the area of continuing education for adults in order that we might create an informed and participating citizenry. The founding fathers of America saw free public education of children as the supporting instrumentality by which democracy could realize its full potential, but this terminal philosophy denied education to adults who make the decisions for democracy (9). Pressey and Kuhlen attempt an overview of education as seen in the prospective of development through the life span, the hypothesis being that such a perspective might reinterpret educational programs and offer cues for their reinforcement and improvement (14).

The disengagement theory of aging suggests that a person withdraws socially and psychologically from his environment. An intermediate theory, based on the disengagement theory of personal orientation allows the individual the possibility of choice within his capacities and social situation. Successful disengagement is not intrinsically necessary, but an equilibrium condition that most of the population reaches. Previous theories have overemphasized the physiological and psychological factors of aging (6).

In 1965 a survey of five counties in the Grand Traverse Bay region of Michigan was made. Adult subjects were asked to identify topics of importance in everyday life on which it was "particularly difficult to find useful and reliable information." The local population was found to rely heavily on the mass media and various kinds of reading matter for all topic areas and on institutional sources and officials in certain cases. Adult education programs were significant sources in few topic areas and for only selective clientele groups (27). A study done with churches seeks to identify and discern between the felt and real educational interests and needs of members over 65 years of age, ways by which ministers identify these interests and needs, and suggests implications of the findings for Christian religious education programs. It was concluded that older adults need to understand the concept of developmental tasks as it relates to later life, improve verbal communication skills, and cultivate an increased awareness of the necessity of thoughtfulness as a style of life and a respect for diversity within the church (23).

The proceedings of a seminar held in Melbourne, Australia in 1965 makes suggestions concerning lifetime learning as shown in the title of the summary of the presentations, LEARNING FOR LIVING, TODAY AND TOMORROW (34).

Webster, in an article in ADULT LEADERSHIP in March 1969 speaks of THE TRIUMPH OF AGING. The retirement years are viewed as a time for further study, new occupations, and hobbies (48). The National Retired Teachers Association and the American Association of Retired Persons suggest a formula for success in organizing a local Institute of Lifetime Learning. The Institute for Lifetime Learning is based on the need to add independence, dignity and purpose to the life of persons 55 years of age or older. Courses offered range from commercial refresher subjects, lipreading for the hard of hearing, creative courses in art, practical sewing, languages, philosophy, psychology, international affairs and other classes designated to enrich the later years and prepare the students for their growing citizenship responsibilities. A guide has been prepared for any group of persons wishing to establish an Institute of Lifetime Learning in their community (50).

Two other examples of formal programs for lifetime learning are The Oliver Wendell Holmes Association and the Institute for Retired Professionals.

The Oliver Wendell Holmes Association seeks to set up, in cooperation with communities and wherever possible in association with colleges, institutes of, by, and for emeriti offering those fully or partially retired an opportunity to continue a life of learning under the guidance of emeriti professors and other instructors. Studies include the human world, the physical world, the historical and political world, the cultural world, the reflective world, and today's creative world. Each community that participates provides meeting facilities, transportation, maintenance, and fees for the faculty during sessions which last from five to fourteen weeks.

The Institute for Retired Professionals sponsored by the New School for Social Research in New York City is an example of a college and/or university involvement in lifetime learning. The older professionals have been encouraged to mobilize themselves for continued use of their professional talents. They choose areas of study far removed from the major content of their profession.

The material which has been written as a result of demonstration programs and from pure research reveals that there is a recognition of the potential for change and growth within older adults and gives evidence of the danger of creating feelings of uselessness with this segment of the population. All levels of government, public and voluntary agencies and other organized groups are becoming involved in creating a variety of programs and projects of an educational nature. Educational institutions of every kind as well as many other organizations such as voluntary groups, private and public industry, churches, national, state, and local organizations are offering older adults educational opportunities in many areas of knowledge.

The need to foster the functional integrity of the older person, promote personal dignity, independence, and sociability and practice physical and mental health maintenance is leading to programs of reforms instigated by those persons, agencies, and institutions working with and for the older person.

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   To explore the interrelations of two ways of analyzing leisure activities--content and significance--and to relate them to age, sex, social class, and personality characteristics, a stratified random sample of men and women aged 40-70 were interviewed as part of the Kansas City Study of Adult Life. Equal numbers of upper middle class, lower middle class, upper-lower class persons, and about half as many lower-lower class persons provided information on everyday activities and their significance to the individual. A set of significance variables was defined and applied to the interviews by means of rating scales. Four psychological variables were made by a different set of judges at a different time. Results indicated that (1) the significance of leisure activities is more closely related to personality than to the social variables of age, sex, and social class, and (2) since different leisure activities can have the same personal significance, people of different age, sex, and social class can derive similar values from their leisure even though its content is different.

2. ORGANISED HOME STUDY FOR OLDER RETRAINEES. Belbin, Eunice and Waters, Pamela. In INDUSTRIAL TRAINING INTERNATIONAL. Research Unit into Problems of Industrial Retraining, University College, London. p196-198. May, 1967.

   Retraining for boiler operators and coal preparation officers was given to 442 men, most of them trained by home study courses, and the remainder were taught either in technical colleges or on in-plant courses. The older men preferred home study because they did not have to take notes. Many of them had problems with concentration, but found that working at their own pace and in complete privacy balanced the difficulty. Those who had continued some form of education after leaving school did much better in theory than those who did not study any subject since leaving school. There was very little difference in practical work in both groups.

3. PROCEEDINGS OF THE NATIONAL CONFERENCE ON MANPOWER TRAINING AND THE OLDER WORKER. (Washington, January 17-19, 1966). National Council on the Aging, New York. U.S. Dept. of Labor, Washington. U.S. Dept. of Health, Education and Welfare, Washington, D.C. EDRS Order Number ED 016 111. 775p. 1966.

   The ten panel and workshop sessions of the National Conference on Manpower Training and the Older Worker included--(1) community action on older worker training and employment--how to get it and maintain it, (2) reaching out to find and motivate the hard-core unemployed, (3) selection for training--do present practices militate against older workers? (4) the role of personal counseling and supportive services, (5) new fields of employment and vocational training, (6) basic education for adults--are special tools and techniques needed? (7) vocational training for adults--does it pay? (8) age restrictions in hiring--some efforts to overcome them, (9) employment counseling--an essential, and (10) employment services for older workers--what more is needed? Appendix II contained a staff report on conference findings and recommended action by various government agencies. Appendix III contained background papers presented by AFL-CIO, Commission for Human Rights, and the French National Railways.

4. LIVING FOR THE 60'S. A LEADER'S DISCUSSION GUIDE (THE TELEVISION SERIES). Bur. of Continuing Education Curriculum Dev., New York State Education Dept. 38p. 1967.

   This discussion guide was prepared for use in conjunction with 20 films which comprise "Living for the 60's" produced by the State University of New York. These films were developed to show the active role that retirees can and do continue to play in the ongoing life of the community. Topics covered include social security, Medicare, physical exercises, hobbies, volunteer work, second careers, continuing education, money management, consumer protection, books, lipreading, cooking, fashion, and income opportunities. The appendix included an outline for preparing to lead a discussion and the techniques of questioning, a checklist for group discussions, a listing of topics occurring in more than one film, and a film order form.

5. RETRAINING AND COUNTRY REPORTS, PARTS II AND III. In JOB RE-DESIGN AND OCCUPATIONAL TRAINING FOR OLDER WORKERS. Supplement to the Final Report of the International Management Seminar (London, Sept. 30 - Oct. 2, 1964). Organization for Economic Cooperation and Development, Paris. 134p. 1964.

   The purpose of the seminar was to provide a forum for employers to discuss their practical experience with special techniques of job redesign and retraining for older workers and to consider how such techniques might be applied further. Representatives from 19 countries attended.

6. COGNITIVE AND MOTIVATIONAL FACTORS IN AGING AND DISENGAGEMENT. Back, Kurt W. and Gergen, Kenneth F. In SOCIAL ASPECTS OF AGING. Edited by Simpson, Ida H. and McKinney, John C. Duke University Press, Durham, North Carolina. EDRS Order Number ED 017 795, price MF $0.25 HC $0.45. p289-295. 1966. (Abstract cited previously on page 31).

7. INDUSTRIAL TRAINING INTERNATIONAL. A REVIEW FOR INDUSTRY AND COMMERCE, TECHNICAL AND FURTHER EDUCATION. 2(5), 40p. May, 1967.

Adult training programs in industry make up the bulk of the articles in this issue. Group training for the future and changes of location by workers is contained in "Training in the Common Market." "Organized Home Study of Older Retrainees," focuses on the successful home study courses in retraining older workers. "Super Polytechnics Statement" on the DES planning for Binary operation of higher education. The problems of supervisory training are studied in "A Programme of Action, The Basis of Supervisory Training Policy, 4." "Group Training on Merseyside" explains the apprentice training program established by the Merseyside Training Council.

8. A TRAINING MODEL FOR THE JOBLESS ADULT. Ulrich, Bernard. In PROCEEDINGS OF THE NATIONAL CONFERENCE ON MANPOWER TRAINING AND THE OLDER WORKER. (Washington, January 17-19, 1966). EDRS Order Number ED 017 783. price MF $0.25 HC $0.90. p15-29 January, 1966.

The training systems design, an interdisciplinary approach utilizing knowledge of behavioral sciences, new instructional technology, and systems design, has been applied to develop a model for re-educating and training the aging unemployed. Research into existing MDTA demonstration programs by the cooperative efforts of McGraw-Hill and the Division of Technical and Vocational Education of the United States Office of Education revealed low educational achievement, scarcity of local job opportunities, extremely low motivation among the unemployed. A systems model was presented for training programs--(1) diagnostic survey--an orientation phase involving recruitment, testing and referral, prevocational training, and inprogram counseling, (2) job training--trainee evaluation and counseling, remedial and specific vocational training, and early job assignment, and (3) placement and follow up, continued for a one-year period and including additional counseling and referral to other adult classes or job training. The system might include four subsystems--basic education and job training, counseling, staff training, and supporting services. (a flow diagram is included.)

9. EDUCATION - THE KEY TO SUCCESSFUL AGING. Crabtree, Arthur P. In ADULT EDUCATION; v17 n3 11p. Spring, 1967.

The founding fathers in America saw free public education of children as the supporting instrumentality by which democracy could realize its full potential; but this terminal philosophy denied education to adults, who make the decisions for democracy. Many adults need literacy education, family life education, marriage counseling, and cultural subjects; but there is no logic in vocational training unless it be for a hobby. Increased leisure will provide the opportunity for the most important job of education--creating an informed and participating citizenry. Our senior citizens could turn their full capabilities of time, effort, and wisdom to the removal of our social ills. New York State has taken a step in this direction in providing expanded education and recreational programs for older men and women.

10. RETRAINING THE DISADVANTAGED WORKER. Cain, Glen and Somers, Gerald. In RESEARCH IN VOCATIONAL AND TECHNICAL EDUCATION, edited by Quirk, Cathleen and Sheehan, Carol. p27-53. 1967.

To enable hard-core unemployed and poverty groups to become self-supporting, federal retraining programs in the last few years have concentrated aiding the disadvantaged, and others with low income, among the unemployed. Employment ratio of disadvantaged trainees (especially non-white) suffered a decline in 1964-65, in spite of improvement in national employment. Yet, when the labor market experience of disadvantaged trainees are compared with disadvantaged non-trainees (or their post-training with their pre-training), benefits to the trainees can be noted. In this chapter case studies are examined, as well as evaluation techniques and the feasibility of using the same benefit-cost procedures (with some important qualifications) to analyze these retraining programs as those applied to regular MDTA programs. Although little has been done to evaluate these relatively new programs, in terms of costs and economic benefit, the results of the case studies indicate the trainees do benefit from them. Tables are included.

11. COMMUNITY ACTION ON OLDER WORKER TRAINING AND EMPLOYMENT--HOW TO GET IT AND MAINTAIN IT. Forrest, Donald B. and others. In PROCEEDINGS, NATIONAL COUNCIL ON MANPOWER TRAINING AND THE OLDER WORKER. Washington, D.C., p43-74. January 17-19, 1966.

C. E. Deichman, Louisiana State Senator spoke on "Getting Action through Manpower Advisory Committees," pointing to such problems as convincing the Employment Service Director that there is a need for older worker training in his own area, the conservativism of the Manpower Advisory Committees, and the resistance of the labor union concerned. H. K. Montross, Office of Employment Service Activities, U.S. Dept. of Labor, spoke on "Community Action Programs: Their Implication for Broadened Training and Employment Services for older workers," and referred to two events which had contributed to the manpower problems of the 1960's--recessions and the upgrading of job specifications since World War II. Violet Edwards spoke on "Teamwork for Good Schools: How Boards of Education, Teachers and Community Schools Groups can put the Three-Way Partnership into Action." She concluded that continuous study, fact-finding, and action on the part of all the natural partners--Boards of Education, teachers, and community groups--are essential if we are to strengthen the capacity of the public schools to provide education and training.

12. EDUCATION FOR AGING. (Leadership pamphlet no. 17). Adult Education Association, Washington, D.C. 55p. 1960.

Discussions in the document include problems to be faced, trends and development, how to plan, the roles of institutions and agencies, and research and materials.

13. A MODEL FOR THE ANALYSIS OF CONTINUING EDUCATION FOR ADULTS. Wientge, King M. In ADULT EDUCATION, 16(4), Sum 66, p246-251. 1966.

This analytical model for analysis of continuing education for adults has been designed along 3 dimensions -- (1) decade of adult development, (2) degree of literacy (illiteracy, functional literacy, average literacy, superior literacy), and (3) types of learning activities (individual study, lectures, group participation with leader, leaderless group discussion). Stages of development are designated as follows--(1) finding a mate, home, and job (20s and under), (2) career and family development (ages 30-39), (3) status maintenance and enhancement (ages 40-49), (4) holding on and looking ahead (ages 50-59), (5) career termination and retirement planning (ages 60-69), and (6) living in retirement (age 70 and beyond). Values of the model for program planning and evaluation, classification of research, and development of behavioral theory are suggested. A chart of the model is included.

14. EDUCATION THROUGH THE LIFE SPAN. Pressey, Sidney and Kuhlen, Raymond G. In PSYCHOLOGICAL DEVELOPMENT THROUGH THE LIFE SPAN. Harper, New York, New York. p122-164. 1957.

This chapter attempts an overview of education as seen in the prospective of development through the life span, the hypotheses being that such a perspective might reinterpret educational programs and offer cues for their reinforcement and improvement.

15. THE ROLE OF COLLEGES AND UNIVERSITIES IN THE EDUCATION OF THE AGED. Hendrickson, Andrew and Barnes, Robert E. CRP-1530, College of Education, Ohio State Univ., Columbus, Ohio. EDRS price MF$1.00 HC-$12.35. EDRS Order Number ED 003 277 245p. December, 1964.

This study was aimed at (1) discovering the educational needs of older persons, (2) determining which of these needs could best be served by activities held on a university campus, offered in a neighborhood center, or broadcast over radio or television, and (3) identifying persons in the older population who could act as resources in teaching classes or programs for the aging. A modified Q-sort of 96 items yielded a rank order preference among the sample for items on religion, problems of older years, and such activities as gardening and flower raising, travel, physical fitness, and good grooming. A second level of interest included topics relating to psychology, managing of finances, history, public affairs, and foreign affairs.

16. RETRAINING OLDER ADULTS FOR EMPLOYMENT IN COMMUNITY SERVICE. Final Progress Report. Thune, Jeanne M. and Tine, Sebastian. Senior Citizens Inc., Nashville, Tennessee. State Dept. of Mental Health, Nashville. EDRS Order Number ED 011 620. EDRS price MF-$0.75 HC-$7.15. 141p. January, 1966.

This project sought to demonstrate the capability of older adults to begin new careers as leaders in community services. Project staff offered five 3-month training institutes in community service in Nashville, Tennessee, during 1963-65 with the help of consultants and representatives of public and private agencies and several area universities. The curriculum included orientation to the program and services of Senior Citizens, Inc., -- classwork covering (1) psychology of group and individual behavior, (2) structure of community agencies and methods of organizing sources, and (3) understanding of recreation, interviewing, and public information--and supervised field practice under a project staff member or an agency supervisor. Certain biographical data and personality traits were identified as reliable predictors of satisfactory performance in community service. The project also confirmed the existence of great latent interest among older adults in entering community service, and stimulated several senior centers, mental hospitals, instituion, clubs for older people, and school departments to consider older adults as potential personnel.

17. TRAINING AND RETRAINING OLDER WORKERS; AN ANNOTATED BIBLIOGRAPHY. Kreps, Juanita M. and Laws, Ralph. National Council on the Aging, Inc., New York, NY. Also available from the National Council on Aging, 315 Park Ave., South, New York, NY 10010 ($1.25). EDRS Order Number ED 026 472. EDRS price MF-$0.25 HC-$1.60. 30p. 1965.

The need for economy-wide measures designed to retrain workers of all ages resulted in development of this annotated bibliography which is primarily restricted to articles discussing the retraining of older workers. The 123 documents annotated represent the years 1943 through 1964 and are organized under headings of general references and government.

18. NEW CAREERS IN MIDDLE AGE. Belbin, Eunice and Belbin, R. M. (Separatum to proceedings of the International Congress of Gerontology, 7th Vienna, June 26 - July 2, 1966). EDRS Order Number ED 014 663 price MF $0.25 HC $0.85 15p. 1966.

Serious problems exist in retraining older workers, but where an appropriate method of training can be developed, older trainees can achieve results comparable with those of their younger colleagues. Specific requirements of the middle-aged learner include long and uninterrupted learning sessions, greater consolidation of learning before new skills are attempted, accurate responses and rapid feedback during learning, self-structured learning programs and avoidance of competition, and active mental participation during learning (learning by discovery rather than by rote). Problems of steering older workers into training can be alleviated through personal counseling and the use of group training. Home study combined with periodic practical training and group tutorials has been successful, especially when trainees have had some learning activity since leaving school. Real employment security rests on the ability to move from one job to another and here training of the middle-aged in new skills plays a vital role. The young worker, too, must accept lifelong learning in a flexible pattern of work and study.

19. PROBLEMS OF LEARNING FOR THE OVER 40's. Belbin, Eunice. In GERONTOLOGIA CLINICA. v7 n1 p61-8. 1965.

Psychological difficulties of the older learner are discussed in relation to retraining for employment. Previous evaluations of adult learning have not realistically appraised the older adults' ability since laboratory training is artificial, tends to reduce confidence, and requires the older subject to adopt a form of learning with which he is unfamiliar. Studies are quoted which reveal that activity learning is superior to the traditional methods for the older worker. As a result of experiments conducted in both laboratory and industry in analyzing the activity method, general principles for training the older worker are suggested. Among areas discussed are: short term memory, interference, translation from one medium to another, need for unlearning, paced and complex tasks, and lack of confidence.

20. RESOURCES FOR THE AGING--AN ACTION HANDBOOK, A CATALOGUE OF FEDERAL PROGRAMS, FOUNDATIONS AND TRUSTS, AND VOLUNTARY AGENCIES THAT ASSIST COMMUNITIES AND INDIVIDUALS TO MEET THE NEEDS OF THE AGING. National Council on the Aging, New York, NY. Office of Economic Opportunity, Community Action Program, Washington, D.C. EDRS Order Number ED 022 116 price MF $1.25 HC $16.25 323p. February, 1967.

Published to stimulate local, state, and national groups to develop programs to assist the aged, this catalog presents information about federal grants-in-aid and basic service programs that serve the old and about foundations and trusts, and national voluntary agencies supporting programs for the aged or willing to assist local groups organizing programs. Resources are given for financial assistance, food and clothing, housing, health services, nursing care, employment and training, small business loans and services, general education and recreation, consumer education, civil rights, veterans' programs, planning facilities and staffing, programs for specific regions or special groups, and for rural areas and small towns. For each program listed descriptions include the nature and purpose of programs, form and extent of assistance, requirements for eligibility, and where to apply. Field offices and regional addresses of government agencies are given.

21. A TIME FOR LEARNING. THREE PARTS. In JOURNAL HARVEST YEARS; v6-8 June-August, 1968.

A three-part article deals with retirement and counseling: formal education (schools, colleges, vocational training); the new science of gerontology: and educational outlets (radio, television, schools, correspondence classes, and senior centers).

22. A STUDY OF THE RESULTS OF A PROGRAM OF CONTINUING EDUCATION FOR PROTESTANT CLERGY. Stewart, Charles W. Institute for Advanced Pastoral Studies, Bloomfield Hills, Michigan. EDRS Order Number ED 021 190 price MF $0.25 HC $1.05 19p. 1965.

Data on the program of The Institute of Advanced Pastoral Studies were gathered through content analysis of 100 unsolicited letters from conferees, analysis of before and after questionnaires used with a conference and a control group and given to four spring conferences in 1964, and analysis of the Theological Studies Inventory used before the 1964 spring conference and four months later. It was concluded that temporary changes in role perception and behavior as a result of conference attendance may enable a minister to change in his relationship with laymen from a prima donna or laissez -faire style of leadership to one of "coach-player," changes varying somewhat with age and greatly with denomination. An orientation course can guide the conferee to learn certain principles and sensitize him to his mistakes in preaching, group counseling, or administration, but for lasting learning, additional training and work with laymen outside the church are needed. Parish ministers do a great deal of attitudinal and perceptual learning in a short, intensive experience, but there is need for follow up conferences six months to a year later.

23. THE EDUCATIONAL INTERESTS AND NEEDS OF OLDER ADULTS IN SELECTED PRESBYTERIAN CHURCHES. Mills, Beatrice Marie. University Microfilms. Order No. 68-17,282 microfilm $3.00 Xerography $10.60. Ed. D. Thesis. 232p. 1968.

The study attempted to identify and discern between the felt and real educational interests and needs of Presbyterian church members over 65 years of age, to discover ways by which ministers identify these interests and needs, and to suggest implications for Christian religious education. Data were obtained from mailed questionnaires from 187 older adults in eight sample churches and from 39 ministers; also from personal interviews with eight ministers and 48 older adults, who had been selected by a stratified, proportionate random sampling procedure. Of the adults, 30% identified an educational need, most commonly Bible study, discussion groups on current events and needs of older persons, group singing, and seeing a play in the church. Of the ministers, 59% tried to identify the needs of older adults, most frequently through personal inquiry. The ministers perceived the educational interests of older adults to include recreation and hobbies, Bible study, a theology of aging and retirement, and training in group discussion methods. It was concluded that older adults need to understand the concept of developmental tasks as it relates to later life, to improve verbal communication skills, and to cultivate an increased awareness of the necessity of thoughtfulness as a style of life and a respect for diversity within the church.

24. MIDDLE AGE. Owen, Roger. ed. The document is available from the British Broadcasting Corporation, 35 Marylebone High Street, London, W.L., England. BBC-Pub-85. 152p. 1967.

Problems of middle age are explored by contributors from a variety of backgrounds, academic disciplines, and experiences in this book, which was associated with a BBC television series broadcast in Autumn 1967. The book is divided into sections on the middle-aged personality, body (health hazards), mental powers (ability and retraining in industry), and roles (wage worker, older executive, marriage and the family, and the role of the grandmother today).

25. A PROGRAM OF ADULT EDUCATION FOR THE MARSHALL COUNTY HIGH SCHOOL SERVICE AREA, LEWISBURG, TENNESSEE (M.S. thesis). Barnes, John O. Jr. Tennessee University, Knoxville, Tennessee. 92p. August, 1963.

The need for an adult education program in the Marshall County (Tennessee) High School service area was studied through questionnaires completed by 207 adults, examination of school and government records, and personal interviews. It was found that over half of the area residents were not high school graduates, and that many adults desired more educational opportunities offered through the public schools. Adults were primarily interested in learning skills to help them make a better living, but wanted to improve leadership abilities and citizenship also. People were willing to pay more taxes for a program of adult education. Lack of time and not lack of interest or money was considered to be the greatest deterrent to a successful adult education program in the area.

26. A REVIEW OF PRESENT EDUCATIONAL PROGRAMS AVAILABLE TO OLDER ADULTS IN CALIFORNIA'S PUBLIC ADULT EDUCATION PROGRAM. DeGabriele, Eugene H. California State Dept. of Education, Sacramento, California. EDRS Order Number 018 712 price MF $0.25 HC $0.50 8p. August, 1967.

Administrators of adult education programs in adult schools and junior colleges in California were surveyed in May 1967 as to ways in which their programs were serving the educational needs of adults aged 50 and over. Fine arts, crafts, homemaking, business education, Americanization, civic education and special fields, vocational and industrial arts, and English, speech arts, and foreign languages were the areas of study drawing the greatest number of older adults. About half the schools stated that specific classes and lecture series for older adults had been organized, and most also reported that older adults were being served by regular counseling programs. Twelve principal educational objectives, headed by development of skills and interests suited to later life, retirement planning, and improved understanding of the psychological and physiological aspects of aging, were named, together with ten problem areas relating to transportation, facilities, staffing, community cooperation and support, budget limitations, student motivation and attendance, and the identification of educational needs. The document also includes 45 examples of courses and lecture series.

27. INFORMATION SOURCE AND NEED HIERARCHIES OF AN ADULT POPULATION IN FIVE MICHIGAN COUNTIES. Rieger, Jon H. and Anderson, Robert C. Paper presented at a National Seminar on Adult Education Research (Chicago, February 11-13, 1968). Inst. for Community Dev., Michigan State University, East Lansing, Michigan. EDRS Order Number ED 017 809 price MF $0.25 HC $1.20 22p. February, 1968.

In a 1965 survey of five counties in the Grand Traverse Bay region of Michigan, data on information sources and needs were obtained from a two percent sample of households. Adult subjects were asked to identify topics of importance in everyday life on which it was "particularly difficult to find useful and reliable information," and sources of information presently in use concerning these topics. (Financial matters, occupational, professional, and farming matters, public affairs, consumer information and educational and career planning were the major topics named.) Results were analyzed in terms of the hierarchical patterns of information needs and information sources by residence, education, age, and sex. The local population was found to rely heavily on the mass media and various kinds of reading matter for all topic areas and on institutional sources and officials in certain cases. Young adults relied also on friends and relatives and exhibited the highest level of need for new information. Adult education programs were significant sources in few topic areas and for only selective clientele groups. Observations were made about the implications of the data for adult educational program development.

28. BUILDING A PHILOSOPHY TOWARDS AGING. Kuplan, Louis. OCCASIONAL PAPERS ON ADULT EDUCATION. Univ. Extension, British Columbia University, Vancouver, B.C., Canada. 12p. January 5, 1958.

The problem of the aging includes a demographic problem, a social problem, and a technological problem. A philosophy of aging is one which is concerned with the worth of the individual, with humane values. This means we must be concerned with (1) the economic security, which includes health care and housing, of the aging, (2) satisfactory, meaningful substitutes for jobs for retired people, and (3) educational opportunities for the older person as well as educating our communities to a better understanding of what the aging process is about.

29. OHIO SENIOR CITIZENS CENTERS. Stellman, Samuel David. University Microfilms, Ohio State University, Columbus, Ohio. Order No. 63-6265. Microfilm $2.75 Xerography $8.00. Ph. D. Thesis. 175p. 1963.

The study aims at combining the use of a comprehensive questionnaire, staff interviews, and a literature review to discover information which can be used to establish guidelines for senior citizens' centers. Many centers have been initiated in communities because the need was obvious and often urgent. However, the lack of sound financial planning caused difficulty early in their developing stages. Financing of centers remains a major concern throughout the state. At present, in spite of the large number of aging people, there is still space in most centers for additional members. Most center members today are people in the lower income categories of the aging population, widowed, over 70 years of age, who have little education; the more affluent and "younger" aging do not use the senior citizens' centers to any great extent. The personnel operating these centers lack expertise in catering to their clientele and have been unable to interest their participants in adult education courses. However, recreational activities continue to be popular with those who attend.

30. RETRAINING AND COUNTRY REPORTS, PARTS II AND III. In JOB RE-DESIGN AND OCCUPATIONAL TRAINING FOR OLDER WORKERS. Supplement to the Final Report of the International Management Seminar (London, Sept. 30 - Oct. 2, 1964). Organization for Economic Cooperation and Development, Paris. 134p. 1964.

(Abstract cited previously on page 63.)

31. NATIONAL PILOT INSTITUTE ON THE EDUCATION OF THE AGED (JAN. 28 - FEB. 5, 1967, EXETER, NEW HAMPSHIRE), A SELECTED BIBLIOGRAPHY. 25p. 1967.

(Abstract cited previously on page 28.)

32. TRAINING OF OLDER WORKERS--ENGLISH AND WEST EUROPEAN EXPERIENCE. Belbin, Meredith. In PROCEEDINGS OF THE NATIONAL CONFERENCE ON MANPOWER TRAINING AND THE OLDER WORKER, Washington, D.C., January 17 - 19, 1966/31-42. (See AC 001 331) EDRS Order Number ED 017 784 price MF $0.25 HC $0.75. 13p. 1966.

The role of the Organization for Economic Cooperation and Development is illustrated in reports of varied retraining programs (part of the Active Manpower Policy) in Great Britain, France, and Sweden. The programs include such activities as -- (1) financial encouragement of industry to participate in training the older adult, (2) retraining to meet specific shortages in the work force, (3) training for future industrial needs, and (4) provision of training allowances. Scientific research done in England has provided evidence that it is sound public policy to invest in training of older persons, and specially-designed training for them is very effective. The results of two studies demonstrate an activity method of learning is superior to memorization, and when inference, or deduction, is introduced into programmed and activity learning, success is greater than by either method, as well as by memorization. A high dropout rate at commencement of training and after transfer to the work situation, and low employment in larger, more advanced firms were also revealed by the surveys. Information resulting from these studies is being applied in experimental projects in five countries.

33. LIVING FOR THE 60'S. A LEADER'S DISCUSSION GUIDE (THE TELEVISION SERIES). Bureau of Continuing Education Curriculum Dev., New York State Education Department. 38p. 1967.

(Abstract cited previously on page 63.)

34. LEARNING FOR LIVING, TODAY AND TOMORROW. (Proceedings of seminar held at the Adult Education Center, Melbourne, August 14, 1965). Council of Adult Education, Melbourne (Australia). Adult Education Association of Victoria, Melbourne, Australia. 33p. 1965.

Talks summarized in these proceedings are--"Learning to make a living," "Living or just existing?" "Learning for living in retirement," and "Learning to live in an unknown tomorrow."

35. VOCATIONAL GUIDANCE AND CAREER DEVELOPMENT, SELECTED READINGS. Peters, Herman J. and Hansen, James C., eds. Published by Macmillan Company, New York, NY. 47p. 1966.

Prepared primarily for school or college counselors and students of education and counseling concerned with vocational guidance of students, the readings emphasize vocational guidance for normal individuals. The anthology is divided into the following sections: exploration of various concepts of work; society's dimension of work: theories of vocational guidance; procedures for guidance; the continuing process of vocational development from elementary through the college level; and the continuing needs in adult vocational guidance and career development.

36. PARTICIPANTS AND PARTICIPATION IN ADULT EDUCATION. Newberry, John S., Jr. Chapter 6 in AN OVERVIEW OF ADULT EDUCATION RESEARCH by Edmund des Brunner and others. Available from Adult Education Association of the U.S.A., 1225 Nineteenth Street, N.W., Washington, D.C. 20036. 30p. 1959.

Studies of participation in adult education have included study of characteristics of participants in particular types of programs, and sampling of a population or area to study participants in various types of adult education; most studies are purely descriptive. Because of the limited scope of this research, studies of social participation have applicability. Participation may be classified by the nature of the relationship (formal, informal), the organization or group (church, formal associations) or the type of activity (attendance, reading, visiting). Participation in formal associations has been extensively studied and includes primarily church membership and volunteer service in health and welfare agencies; research in informal participation indicates that it is more widespread than other forms. Relationship has been found between participation and such personal characteristics as occupational level, age, sex, family cycle, length of residence, and educational and cultural background. Dynamic factors in the relationship of the individual to the group have proved significant to participation. The great variability in patterns of participation indicates that adult education organization and methodology must be based on careful, detailed, and continuing studies of the population to be served and of existing patterns of organization and interaction.

37. A COMPARATIVE STUDY OF SOME INTERESTS AND ATTITUDES RELATIVE TO PUBLIC SCHOOL ADULT EDUCATION. (Ph. D. thesis). Wasinger, Gordon Bernard. Iowa State University, Iowa City, Iowa. College of Education. University Microfilms, Order No. Mic 61-1940. microfilm $5.95 Xerography $21.20. 468p. 1961.

A study was made to determine the possibility of difference in verbal interest expression between those who attend adult education programs and those who do not attend. A random sample of adults who had attended the last session of evening school in five Iowa communities were compared to nonparticipants. The 338 interviewees responded to each of ten interests on a five-degree scale and also ranked the interests. Neither between participants and nonparticipants nor between one community and another were there significant differences in verbal expression of educational interests or selected attitudes but the subject areas of family relations, community development, and religious understanding seemed to hold promise for attracting nonparticipants. Group analysis by age, education, occupation, and income provided data for program planning. Recommendations were for studies to clarify the role of motives and the relative value of the various types of interest responses. Questionnaire forms and an eleven-page bibliography are appended.

38. THE SALZBURG DISCUSSIONS. (Report of an international seminar of leaders in adult education, Haus Rief, Austria, July 24 - 30, 1960). Pattison, Rose Mary. Indiana Dept. of Public Instruction, Indianapolis, Indiana. 15p. May, 1967.

The annual international seminar, sponsored by UNESCO for Eastern Europe and Russia, was concerned with the relationship of adult education and leisure time activities and education, literature appreciation, television, and programmed instruction. Austria, England, and Czechoslovakia discussed leisure activities and it was felt that formal education has not provided appropriate training and too much emphasis has been placed on commercial releases. Community centers can provide social, recreational, and educational activities. West Germany, Norway, and Switzerland discussed their methods of education for leisure through womens education, programs for the elderly, and center activies in home arts, child care, physical fitness, and training for service industries. Research was recommended in education of the elderly. In West Germany's and England's discussion of literature appreciation, it was felt that formal presentations did not reach the common man. Television in adult education was discussed by the United States. International cooperation can help solve basic problems in establishing educational television on public networks. Programmed instruction was best suited to the slow methodical learner, concrete learning experiences, and military personnel.

39. TRAINING METHODS FOR OLDER WORKERS. Belbin, R.M. (Employment of older workers, 2). This document, No. 18,251, is available, for $2.00, from the Organization for Economic Co-operation and Development, 2, rue Andre-Pascal, Paris (16e), France. 76p. 1965.

A survey was presented of scientific knowledge on age changes in human capacities, especially in learning ability and adaptability, and described various methods used to train workers over 40. The role of memory, motivation, rigidity, and intelligence in determining the learning efficiency of mature adults was assessed, also difficulties caused by pacing, differences in skill and aptitude, and indirect relationship of information to desired action. Case histories of special training and placement services for older workers and for the long term unemployed suggested that effective learning depended heavily on suitable conditions. Other experiments compared instruction versus demonstration, learning for use versus recapitulation, and activity learning versus memorizing. Findings showed that, if the setting and methods used were adapted to changing capacities and needs, learning and training were possible even in late maturity. Included are charts and photos, procedures for overcoming specific learning difficulties, suggestions on interpreting experimental data, and 83 references.

40. TRAINING FOR NEW TRENDS IN CLUBS AND CENTERS FOR OLDER PERSONS. (Proceedings of a seminar at Ithaca College, Ithaca, New York, June 23 - 25, 1966). New York State University, Albany Bureau of Special Continuing Education, New York State Education Department, Albany, NY. EDRS Order Number ED 015 398 price MF $0.50 HC $5.15 101p. June, 1966.

This advanced training seminar was designed for staff members of senior citizen programs throughout New York State. Position papers were presented on the social future of the aging and on effective means of serving the individual. Workshop discussions were held on ways to achieve a new social role for the elderly, the group method in clubs and centers, and individual needs. Program skills demonstrations dealt with uses of folk and square dancing, music activities, physical fitness activities, puppetry, and book and discussion groups for senior citizens. Recent significant developments were reviewed -- a primary school "substitute grandparent" program in White Plains, the training of volunteers to visit shut-ins, proposed county-wide and neighborhood programs of service to the aged, teacher training for "Den Mothers," special health services by the New York City Department of Public Welfare, and the Fourscore Club in Cortland. A panel also discussed mental and physical health, new goals for social action, more effective use of older persons as volunteers, limited paid employment for older persons, and program development.

41. SPECIAL PROGRAMS UNDER TITLE I HIGHER EDUCATION ACT OF 1965, AUGUST, 1966, OCTOBER, 1967. Final Report. New York State University, Farmingdale Ag. and Tech. College. EDRS Order Number ED 015 393 price MF $0.25 HC $0.65 11p. 1967.

In 1966, the State University of New York at Farmingdale developed three noncredit daytime programs in education for community service. Gateway to Careers for Women, a 15-session workshop, provided field assignments, jobfinding skills and counseling. New Horizons for Later Years was a 10-session program for older men and women preparing for retirement. Medicare-Aide Training Program provided a 10-session workshop to train men and women as paid or volunteer nurses aides. All programs involved guest speakers, field trips, films, new techniques in group guidance, and creative teaching materials. Attendance was well above average for adult education programs. Some of the participants received tuition grants and transportation stipends. Instructors included a nurse, a social worker, and three assistant instructors working in a team teaching situation. Community involvement exceeded expectation and media coverage was extensive, the greatest response coming from newspaper articles. Requests for materials and information have come from many organizations and individuals, and the staff have been involved in related conferences, programs, and advisory groups. During the 1967-68 academic year, an expanded curriculum will provide training for nurses aides, leaders, hard-core unemployed women, and teachers aides.

42. BLUE-COLLAR WORLD, STUDIES OF THE AMERICAN WORKER. Shostak, Arthur B., ed. and Gomberg, William, ed. Available from Prentice-Hall, Inc., Englewood Cliffs, New Jersey. 651p. September, 1965.

Written to provide a broad picture of the working class members, this book presents articles contributed from many disciplines. Sections include such areas as--a comparative study of the new and old working class, parent role, working class adolescent, the community, moral perspectives and religion, physical and mental health, leisure, unemployment and retirement, and employment trends and prospects. The appendix contains a paper reporting on the identification of lower class families in an urban community.

43. RETRAINING BECOMES A REALITY. (Reprinted from PERSONNEL MAGAZINE, Oct. 1966, p28-31.) Tavernier, Gerry. October, 1966.

Successful retraining schemes all over Great Britain refute the myth that older workers cannot be retrained in industry. But care has to be taken in the choice of training techniques, and in modifying conditions to help those who are unaccustomed to industry to adjust to its pace. Rules for retraining are given.

44. ADULT EDUCATION STUDENTS. Hanna, Ian. In REWLEY HOUSE PAPERS 1965-66/ 14-43. Available from Oxford University, Delegacy for Extra-Mural Studies, Rewley House, Oxford, England. 30p. 1966.

A study was made of adult students in Leeds, England, and of the educational institutions designed to serve them. Students at Swarthmore (an adult education center offering a varied program including university extension and local education authority (L.E.A.) classes) and at the L. E.A. evening institutes (former technical education centers now offering recreational and scholastic subjects) were compared with each other and with the Leeds adult population. Students were younger, better educated, and of much higher occupational status than the general population. They were unusually attached to education for its own sake, showing a self-improving tendency. Although evening institutes had been thought to be for the working class, the most successful were located in the highest income areas. It was evident that in order to attract students outside the highest skill, educational, and motivational levels, courses must be designed for specific student types, who must be deliberately recruited. More research into teaching methods, student motivation, and the changing social function of education is needed.

45. ADULT TRAINING AND RETRAINING, AN INTERVIEW WITH JOHN WELLENS. Belbin, Eunice. In INDUSTRIAL TRAINING INTERNATIONAL, 2(8)/303-309, August, 1967. 7p. 1967.

There are social and psychological problems in adult training and retraining besides the technical task of instruction. Many retrained adults are lost because of poor rehabilitation, counseling or induction into the job. It is better to train people in groups, and to move them to development areas in groups. Paper-and-pencil techniques are inadequate for the selection of older workers for retraining--job replica tests, in preliminary results, indicate those who will be rejected in training centers. Certain psychological difficulties such as pacing, short-term memory and interference factors, and unlearning must be understood before one can teach an older person. The big secret is training people how to learn.

46. FOCUS--TRAINING, SECOND ANNUAL INSTITUTE FOR THE AGING. Cohen, Deborah B., ed. (United Community Services of Metropolitan Boston, April 21, 1967). United Community Services Aging Project, Boston, Massachusetts. EDRS Order Number ED 012 858, price MF $0.25 HC $2.05. 39p. June, 1967.

This institute, sponsored by the United Community Services of Metropolitan Boston, the Massachusetts Commission on Aging, and the Boston University Council of Gerontology focused on recruitment and training of trainers who could be available to agencies and institutions for training personnel working with the aging. One conference paper discussed various elements and dimensions of the training process. Another described a training program for social service aides (subprofessionals) at the Boston Centre for Older Americans. The third presentation described recent and current health services training efforts in Massachusetts, New Hampshire, New York, and Delaware. Basic respect for older persons and their capacities, appreciation of the socioeconomic influences on aging, basic understanding of the learning process and of trainee characteristics, clear program objectives, due attention to all aspects of planning (subject area , functions, format, methods, level of training, program length), systematic evaluation and feedback, close interaction with trainees, and knowledge of community resources were seen as vital in imparting skills and knowledge for effective individual, group, and community service.

47. VOCATIONAL TRAINING FOR ADULTS, DOES IT PAY? ARE SPECIAL TECHNIQUES NEEDED? PANEL AND WORKSHOP VII. McKechnie, Graeme and others. In PROCEEDINGS OF THE NATIONAL CONFERENCE ON MANPOWER TRAINING AND THE OLDER WORKER, Washington, Jan. 17 - 19, 1966/367-435). EDRS Order Number ED 017 788, price MF $0.50 HC $3.60. 70p. 1966.

A thorough-going job of retraining older persons in necessary to get the job progression line moving. For many years, the Port Authority of New York has included in its training program the retraining of maintenance men at the journeyman and helper level. Both classroom and shoproom instruction are provided and basic skills and remedial education included. Success in training plumbers, pipefitters, and sprinkler fitters in the construction industry has shown the need for short, practical courses, visual aids, competent instructors, and immediate application of skills. In ten years of experimental work in the steel industry, on-the-job training has proved most practical and effective for retraining supervisors, operators, and maintenance men. Research on adult learning at Duke University has suggested that a learning deficit is not truly of learning but of performance and recommends that retraining be a routine part of work in order to minimize the stress of the learning situation. Provision is made under the Economic Opportunity Act for a comprehensive program of basic education, vocational training and counseling, and social services for the hard-core unemployed, many of whom are over 45.

48. THE TRIUMPH OF AGING. Byrnes, Hazel Webster. In ADULT LEADERSHIP; v17 n9 p338-9. March, 1969.

The retirement years are viewed as a time for further study, new occupations and hobbies. The American Association of Retired Persons which includes the National Retired Teachers Association offers such opportunities in the form of classes, lectures, films, and tours.

49. OLDER WORKERS TRAINING AND EMPLOYMENT PROGRAM. John F. Kennedy Family Service Center, Inc., Charlestown, Mass. United States Department of Labor, Washington, D.C. Contract 82-20-20. EDRS Order Number ED 028 335. price MF $1.00 HC $11.80. 234p. April, 1967.

The John F. Kennedy Service Center in Charlestown, Massachusetts, was set up to help older workers find employment and it coordinates health, education, employment, and welfare services and legal aid. The Federation of Charlestown Organizations, area colleges and universities, public and private industry, and social agencies have contributed to its development. The program aims to locate, identify, and motivate the older adult; to direct his selection of a job and preparation for it; to place him in a job; or create a new job for him. Informal recruitment methods have been found most effective; these include direct contact or promotion by church, business, union, or fraternal service groups, and the Massachusetts Division of Security. The average applicant at the Center is 45 or over, with few job opportunities, poor morale, and lack of confidence; he has been forced into retirement prematurely and has a restrictive pension and insurance plan. The program has served 479 applicants and placed 316 successfully. Detailed statistical data and forms used at the Center are included.

50. FORMULA FOR SUCCESS: A STEP-BY-STEP PROCEDURE FOR ORGANIZING A LOCAL INSTITUTE OF LIFETIME LEARNING. Hixson, Leroy E. National Retired Teachers Association, Washington, D.C.; American Association of Retired Persons, Long Beach, California. EDRS Order Number ED 028 366; price MF $0.25 HC $1.05. 19p. 1968.

This document is intended as a guide for any group of persons wishing to establish an Institute of Lifetime Learning in their community. It includes details on the role of the organization, the initial tasks to be done in starting a branch, the job of the program coordinator, minimum and desirable facilities, course content and goals, type of instructors needed, promotion and publicity, and budget and costs. It is recommended that the program coordinator be a volunteer or part-time employee who hires and supervises the qualified instructors the institute employs, and who provides all the supplies needed for the institute or its instructors. Courses should be academically oriented, and the quality of the program should not be sacrificed to save funds. All communications media should be used to advertise the program. The minimum requirements for starting a branch and the local charter are included.

51. UNDERSTANDING THE OLDER ADULT; A TEACHER'S MANUAL AND COURSE OF STUDY FOR USE IN ADULT EDUCATION CLASSES IN SECONDARY SCHOOLS. Los Angeles County Superintendent of Schools, Calif. State Dept. of Welfare, Sacramento, California, Sponsor. Laco No. 93. EDRS Order Number ED 029 238; price MF $0.50 HC $4.05. 79p. June, 1966. (Abstract cited previously-page 6.)

52. THE STORY OF SAGAMORE. PAPERS ON ADULT EDUCATION, No. 19. Applegate, Howard Lewis. University College, Syracuse University, NY. Available from Library Continuing Education, 107 Roney Lane, Syracuse, NY 13210. ($0.35). Third edition revised. 16p. 1961.

The history of Sagamore Lodge is closely identified with that of the Adirondack region and falls into three important periods: (1) development of the rustic woodland lodge by William West Durant; (2) its use as a headquarters of American high society; and (3) as a residential center for adult education programs.

53. 1968 CORRESPONDENCE EDUCATION SURVEY (RESUME). National Home Study Council, Washington, D.C. 2p. 1969.

During 1968 at least 4,782,961 persons (United States) were studying in all types of institutions through correspondence study. This figure is a result of a survey by the National Home Study Council of private home study schools, federal government and military organizations, religious groups, and business and industrial firms or associations. Of the 815 organizations contacted, 298 reported a student body of 4,555,201. Based on previous experience with the schools not reporting, it is estimated they have 227,760 students. The institutions with the largest enrollments were the federal and military programs (2,063,760 students). Those with the least were business and industry (10,153 students). Survey of major correspondence schools throughout the free world outside the United States revealed they had a student body of 1,492,869.

54. RESOURCES FOR THE AGING: AN ACTION HANDBOOK. National Council on the Aging, New York, NY. U.S. Office of Economic Opportunity, Washington, D.C., sponsor. EDRS Order Number ED 032 483; price MF $1.00. HC available from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 (1969 0-354-855). Second edition, revised. 252p. 1969.

This handbook on resources for the aging lists nationwide, federally sponsored programs, national voluntary agencies and associations, and foundations; it includes information on the nature and purpose of the program, types of projects sponsored, and extent of assistance, eligibility requirements, available printed information, sources of further information, and notes suggesting use of agency or program. Categories of programs or services include: civil rights; consumer education; employment, training, and rehabilitation; financial assistance; food and clothing; general education and recreation; health services; housing; national associations; nursing care; planning, facilities, and staffing; programs for rural areas and small towns; programs for specific areas or special groups; small business loans; trusts and foundations; and veterans programs.

55. ERIC MATERIALS; EDUCATION FOR LEISURE. Grabowski, Stanley M. In ADULT LEADERSHIP; v18 n3 p99-100. September, 1969.

Gives samples of the kind of literature on education for leisure processed by the ERIC Clearinghouse on Adult Education and information on how to order the documents.

56. EDUCATION FOR SENIOR ADULTS. Hendrickson, Andrew; Aker, George F. Dept. of Adult Education, Florida State University, Tallahassee, Florida. EDRS Order Number ED 032 511; price MF $0.50 HC $5.75. 113p. 1969.

The major objectives of the Education for Senior Adults Leadership Development Institute were: (1) to give a deeper understanding of the characteristics of senior adults; (2) to give a sense of the richness and variety of activities that could be built into a program for the aging; (3) to provide help in problems of organizing and administering educational programs for the aging; and (4) to motivate participants to use what they learn when they return to their communities. Addresses covered: an overview of education on aging; sociological aspects of aging; recreation's contribution to education older adults; physiology of aging; the role of the arts in the education of the aging; the place of the church in the continuing education of the aging; what it means to teach older adults; counseling of older adults; a comprehensive and coordinated community approach in planning education programs for older persons; and use of the library and other community resources. A general section given on evaluation, emphasizes the relationship between evaluation and goals. This is followed by a copy of three evaluation forms used during the institute and a bibliography.

# CHAPTER V

# RETIREMENT

by

Earl Kauffman, Ed. D.

In the decade which has elapsed since the 1961 White House Conference on Aging there has been considerable effort by many authors to bring the "retirement career" into the stream of public consciousness. It is the purpose of this chapter to organize some of the body of knowledge about retirement into a conceptual pattern for use by scholars and planners who are concerned about the meaning of life out of the context of our youth-work oriented culture, i.e., the roleless role of retired persons.

## A. ROLE AND STATUS

It has been only since masses of people began outliving their jobs that retirement has become a matter of concern to society. Although the old, like the poor, have always been with us, it has only been since the mid-thirties that age-related obsolescence has become a national policy. When Congress passed the Social Security Act in 1935 the law stipulated that benefits could be paid only to people sixty-five and over who had practically no income from wages. Employers and labor unions alike accepted this age as the time when a man could be severed from his job and, hence, "retirement" became a way of life for wage earners in practically all categories of employment from unskilled laborers to professional men and executives.

Unfortunately for the retiring workers, however, the social planners did not consider all of the consequences of the national retirement policy. (Maddox, In Neugarten, 1968). Little thought was given to such traumatic experiences as "Twice as much husband and half enough income" or "I married him for better or worse but not for lunch every day" -- complaints so commonly expressed by wives. Their husbands, too, found retirement something less than idyllic. Unaccustomed to being around the house they felt guilty watching their wives carry on with the chores as they always had done. They soon learned that there was no place for them back at the shop or office. Even their places in civic affairs were being usurped by younger men. Instead of bringing happiness, retirement brought discontent and even early death.

Social planners are finally beginning to realize that retirement actually constitutes a "career" of its own; a career for which unique provisions for interpretation, training, deployment, and evaluation must be devised, accepted and implemented. They are becoming conscious of the need to develop an older person's sub-culture (Rose and Peterson 1965) (63), to provide new roles and to re-engage (38), to achieve social integration (Rosow 1967) (64), to systematically study trends in retirement and to provide programs worthy of older adults (43).

The roles and status of older persons with particular reference to the implications of retirement are treated visually in a film series, "Living for the 60's". A leader's guide is available for each of the twenty films which show that retirees can and do develop new roles and actively pursue them (6).

Research on roles and values is beginning to emerge. One illustration is the work edited by Ida Simpson (14) which reports on variations in life situations and the effect of the ways older people cope with them. Personal difficulties are revealed too often to be reflections of pre-existing social roles and values. In her succinct discussion of THE COMMON BODY OF KNOWLEDGE, Donahue re-enforces this viewpoint accurately except in the perspective of our times of social and economic change and longer life cycle." (17). An interesting research procedure was used by Hunter (18) who collected a series of short stories written by Alfred H. Slate. They dealt with how retired people felt and did in particular situations. A more comprehensive study was the doctoral thesis of B. Mills (24) in which she investigated the interests and needs of older adults in a church setting. She concluded that developmental tasks must be understood along with developing skills in verbal communication -- neither of which are necessarily related to pre-retirement work.

The pioneering research of Cumming and Henry (1961) (59) which produced the theory of disengagement presents a penetrating analysis of the changes in roles and life styles which are engendered by retirement and aging. This work has produced a great controversy among gerontologists who are split over whether retirement and aging explain disengagement as a natural process or the product of a faulty culture which has not yet developed a value system which enhances post-labor living. Byrnes (28) views retirement in terms of new roles to play: study, new occupaions, and hobbies while Williams and Wirths (32) concluded from 168 interviews for the Kansas City study that there are six life styles, any one of which may lead to successful retirement living.

Understanding a person as a worker and the same individual as a retiree is an imperative for the gerontologist who seeks the status of a profession for this field. This was pointed out by Kauffman in "New Perspectives on Aging and Their Challenge to Professional Leadership" (34).

Gerontologists and others seeking an understanding of the status and roles of older adults, i.e., people in retirement have many resources available to them. The bibliography prepared by the National Pilot Institute on Education of the Aged (5) list sixty-two publications. The Proceedings of the International Conferences of Gerontology (53, 54) are good reference sources. Although a little out of date, the Publication AGING IN THE MODERN WORLD, AN ANNOTATED BIBLIOGRAPHY is quite complete (Office of Aging No. 216-1963) (56). More recent bibliographies are the series ADULT DEVELOPMENT AND AGING ABSTRACTS issued by the National Institute of Health, U.S.Department of Health, Education and Welfare.

## B. PREPARATION FOR RETIREMENT

Recognition that living beyond the years of work is a matter of concern for gerontologists and others can be found in the growing body of literature on preparation for retirement. Popular books, Margolius (1969) (62), the Herseys (1969) (60), and Arthur (1969) (55) are examples of useful how-to-do-it guides and pep-talk treatises. They serve to inform the layman and help support the trend toward a retirement sub-culture. More sophisticated works, based upon research, are also appearing with frequency: A FUTURE FOR THE AGED (Carp, 1966) (57), AGING AND LEISURE (Kleemeier 1961) (61), THE RETIREMENT PROCESS (Carp ed. 1966) (58).

The University of Michigan's Institute of Gerontology is taking the lead in developing a scholarly approach to preparation for retirement. A most recent development has been a short course designed to train leaders to organize and conduct retirement planning programs and to serve as consultants to employers, unions, and similar groups. Woodrow Hunter, presently acting director of the Michigan Institute, has described a retirement planning program developed by industry and labor (3) in which the objective was to train discussion leaders for retirement programs that were cooperatively designed by the unions and the company. A film has been made on this project. In his PREPARATION FOR RETIREMENT HANDBOOK (1), really a collection of booklets, Hunter explores the legal, social, financial, and health aspects of retirement and thus sets the agenda for many retirement programs. Hunter discovered, however, in his study or retirement education in the United States and Great Britain (8) that comparatively few workers enroll in pre-retirement programs in spite of strong recruiting efforts. He also discovered that both countries need more experimentation with course content and teaching methods. He presents some leads for accomplishing this in the paper he prepared for the National Institute of Labor (19).

Motivating older workers to prepare for retirement is not accomplished by merely announcing the availability of training programs. Golatz and Kirk have prepared an interim report on this resistance (10) in which they are investigating the effect of role continuity upon attitudes as blue-collar workers pass from laboring into retirement.

Teaching techniques must be devised which are appropriate to the adult learners, particularly those under stress of the retirement syndrome. An unusual approach was developed by Sprague and Boocock (25) in which "simulation" techniques were applied to four retirement problems: finances, housing, health, and social environment. This was a foray into "gamesmanship" which is a technique growing popular in industry. The National Institute of Industrial Gerontology is continuing this research to produce a sequence of games to give practice in making decisions related to the needs of older adults and the resources available for meeting them.

The National Pilot Institute on Education for Aging (4, 5, 9) was an effort to bring adult educators and gerontologists together to systematically plan retirement-education and prepare leaders to organize and teach courses. The bibliography it developed (5) has a section of 33 references on adult education in general and 203 specifically on education for the uses of leisure, counselling, programs, services and other subjects directly related to retirement planning.

EDUCATION FOR AGING (21) will prove to be a useful bibliography for people working in the area of retirement education. Its annotations and abstracts are divided and indexed into sections related to characteristics, learning abilities of older adults, training programs, retirement and pre-retirement education. This document also lists other ERIC publications on adult education which gives the reader an entre into the work of other organizations related to retirement planning.

Another bibliography which adult educators and gerontologists will find useful is TRENDS IN RETIREMENT EDUCATION (36). Prepared by the Los Angeles region of the Conference for Welfare Planning, these are references to pre-retirement counselling as a community responsibility. This is a useful reference in that it touches upon retirement planning as something more than the organization of activities per se and the joining of golden age clubs just to have fun.

## C. RESEARCH - THE IMPERATIVE TO PLANNING RETIREMENT PROGRAMS

Looking backward into the interests and activities of people who have not reached retirement and forward into the programs chosen by retirees, Peters, Hansen and Havinghurst (2) defined a set of significant variables and applied certain rating scales in interviews with a stratified random sample of men and women aged 40 to 70. This is another segment of the Kansas City Study. Other studies of retirement programming based upon research are those by Wolfe (11), a doctoral thesis based upon the use of attitude scales; an experimental program in art education by Sanders (29) which also used an attitude scale; Tough's study (39) of why people begin and continue a learning project, while not directly related to retirees does have implications for planners and programmers. Learning and modification of attitudes in pre-retirement education has been studied by Anderson (40) and comparisons between participation of adults who have grown old with their earlier activity choices is of concern to Videbeck and Knox (42) who by use of seven participation variables concluded that how active one is in retirement depends upon individual subjective factors as well as status within the life cycle. A closely related study is that of Halpern (33) which deals with retirement satisfactions and future time perspectives. Measures of work values and retirement satisfactions were used with senior citizens over sixty-five. An important conclusion is that retirement satisfaction is positively related to future time perspectives.

One study which presents the life span as a biological-behavioral continuum is that of Lidz (48). Drawing upon dynamic psychiatry and psychoanalysis he views the individual as he passes through various life-stages and developmental tasks. The extensive documentation makes the book especially useful, particularly when used in connection with the work of Osterbind (49) who supplies insights into the field of social change in which the retiree must function, and that of Hendrickson and Aker (50) who are concerned with educating senior adults. The evaluation form used during the institute from which material for the book was drawn may prove highly useful in relating theory to practice.

Prerequisite to planning retirement programs is an understanding of comparisons between work and leisure. Kreps (43), on the basis of a cross-cultural study (United Kingdom, West Germany, Sweden, and Switzerland) finds that it may be advantageous to redesign the pattern of work-retirement by intermingling more leisure throughout the work span. Kreps' work is useful because of the statistical data it presents. What might be considered a companion study because of its cross-cultural basis is the study of OLD PEOPLE IN THREE INDUSTRIAL SOCIETIES by Shanas, et al (45). Based on interviews and case studies the present capacities of the elderly population in Denmark, Great Britain and the United States are studied more in terms of what should be appropriate governmental policies than specific retirement programs.

## D. PROGRAMMING RETIREMENT

The purpose of preparation for retirement is to live successfully in a milieu which has its own definitions, modalities, and delimitations. With the two-way spread of retirement years -- earlier job leaving and extended life span -- the Retirement Career is achieving great personal and societal importance. Social planners and implementers are beginning to understand that the importance of programming retirement is far more complex than merely "opening up" golden age clubs and providing occasional parties for nice old people.

In a longitudinal study of pre-retirement education Hunter (37) discovered that group discussions over a ten-week period led to significant reductions in dissatisfactions with retirement and encouraged participation in activities with family and friends. The study also revealed many of the issues that older adults want to learn about: money matters, physical and mental health, living arrangements, relationships with family and friends, legal affairs, free time, and community affairs. Kauffman (22), likewise, found in a demonstration program in continuing education that when older people themselves develop their own programs they choose to study these same issues and add to them opportunities to develop rapport and empathy with their peers in retirement classes. Both studies emphasized research as a necessary component in retirement programs.

Colleges and universities are beginning to accept responsibility for serving older adults. The study by Hendrickson and Barnes (20) was aimed at discovering the educational needs of older adults and how these could be served on campuses and in community facilities related to universities. The use of a Q-sort of ninety-six items yielded a rank-order of program preference. The ability of older adults to do college-level work was described by Kauffman (38) who described a program which provides free tuition to people over sixty-five. In a three-part series HARVEST YEARS (23) summarized educational opportunities offered by several educational institutions, including retirement and counselling, formal education, such educational outlets as radio, television, correspondence courses and senior centers.

Public schools are becoming active in providing programs for retirees. The activities of the California Public Schools are described by De Gabriele (26). He found that in addition to offering a variety of programs ranging from Americanization and Basic English to foreign languages most schools reported that most older adults were being served by counselling programs.

Another agency providing programs for people in retirement is the American Association for Retired Persons whose Institute for Lifetime Learning is described by Byrnes (28) and for which Mitchell (30) has prepared a guide for program development.

Nursing Homes are developing programs for older adults which are especially adapted to the needs of their residents. Some such studies are presented by Tagne (31) who sought to identify leaisure interests and participation patterns together with the beliefs of administrators and authorities on aging. Her interviews revealed that few patients were interested in participation in leisure activities, that personal control and enjoyment was important, and that most patients actually were physically able to engage in a surprising number of activities. Many of her findings run counter to the commonly held beliefs of administrators and experts.

Senior citizens' centers, once the mere extension of play programs for children, are developing into multi-purpose facilities that offer a multitude of services which require highly trained leaders. Research is being developed to provide the guide lines for the organization, programming, staffing, and evaluation of these operations. A case in point is the study by Stellman (41) of senior centers in Ohio. By combining questionnaires, staff interviews, and reviews of pertinent literature he discovered information which can be used as guide lines elsewhere. He discovered that centers are little used by the more affluent and "younger" older persons and that staffs do not have the expertise to involve these people in programs which generally are pitched to the less affluent, older person of little education.

Cognizance is being taken of the need for training personnel to staff facilities providing retirement programs. This was the concern of a seminar at Ithaca College (12). This advanced training center provided papers on the future of aging and an effective means for serving older adults. Workshops on social roles were supplemented by demonstrations of program skills and leadership techniques. Such innovations as substitute grandparents and "den mothers" were demonstrated. Panels discussed the leadership roles older people themselves can assume. The appendix is useful. A similar contribution is the GUIDELINES (13) prepared for union programs. This document lists key policy statements and position papers relevant to the scope of programs, administration, program content, participation in community projects and the pool of talent useful in emergencies to which older people can contribute.

Practical aids to planning and operating programs for older adults, especially in terms of financing, are beginning to appear. In addition to the organization and program materials prepared by the A.A.R.P. (35) several handbooks are available of which the two editions of RESOURCES FOR THE AGING (46, 52) are good examples. Each of these present information about federal grants-in-aid and basic service programs that serve the old, and about foundation, trusts and national voluntary agencies which provide financial support for programs. For each of the many programs listed descriptions of the form and extent of assistance is provided along with information about eligibility and where to apply.

Of growing importance to community planners, adult educators, and gerontologists are the publications of ERIC. The work of this organization, as described by Grabowski in ADULT LEADERSHIP (47) constitutes a most valuable contribution to the field of retirement careers.

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3. COOPERATION BETWEEN INDUSTRY AND LABOR IN RETIREMENT EDUCATION: A PILOT PROJECT OF SCOVILL MANUFACTURING COMPANY AND UAW LOCAL 1604 IN WATERBURY, CONNECTICUT. Hunter, Woodrow W. Michigan University, Division of Gerontology, Institute of Labor and Industrial Relations, Ann Arbor. EDRS Order Number ED 017 770, price MF $0.50, HC $3.00. 58p. 1965.

The Scovill Manufacturing Company and UAW Local 1604 of Waterbury, Connecticut jointly sponsored a retirement education program for all employees over 55 years of age, training leadership from management and the union to conduct programs on a cooperative basis. Thirteen discussion leaders and 13 company and community resource persons took part in the leadership training program. A group of older employees volunteered to take part in the demonstrations. The two-week training program had five phases -- (1) orientation (background information on the aging process, program objectives), (2) demonstration (retirement education program conducted by an experienced leader evaluated by trainees), (3) practice (leaders in training conducted discussions identical to the demonstration), (4) program development (planning future programs), and (5) evaluation (pre- and post-training questionnaires to assess training results). Immediately following the training project, six leadership teams launched their first programs and completed 12 eight-week programs for 100 older employees and their spouses.

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8. A CROSS-NATIONAL APPRAISAL OF PRERETIREMENT EDUCATION. Hunter, Woodrow W. Michigan University, Division of Gerontology, Institute of Labor and Industrial Relations, Ann Arbor. EDRS Order Number ED 022 979, price MF $0.50, HC $5.30. 104p. 1965

   A comparison was made of attitudes toward retirement and readiness for it among hourly-rated older automobile workers in the United States and those in Great Britain. Tables show both similarities and differences in their general characteristics, permitting tentative comparisons. Americans viewed retirement more positively, found their jobs more difficult or unpleasant, expected better retirement income, had more encouragement from employers and unions to retire early, and were more likely to receive preretirement education. Programs in the two countries were compared using a recent United States survey and by means of visits and questionnaires in Great Britain. It was concluded that American programs would benefit from broader public support to provide a variety of participants and community groups, that enrollments in both countries are small and tend to come shortly before retirement, and that more experimentation with course content and methodology is needed.

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10. A STUDY OF BLUE COLLAR WORKER RESISTANCE TO PRERETIREMENT EDUCATION. Interim Report. Golatz, H. J. and Dansereau, Kirk. Pennsylvania State University, University Park, Department of Labor Education, 30p. October 1964.

A four-year project is proposed to examine the extent to which varying degrees of role continuity, caused by the transition from work to retirement, are a predominant factor underlying present blue collar workers, aged 50-65.

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Abstract cited previously on page 76.

13. GUIDELINES TO THE AFL-CIO COMMUNITY SERVICES PROGRAM. AFL-CIO Washington, D.C. Department of Community Services. EDRS Order Number ED 014 379, price MF $0.25, HC $1.25. 23p. March 1966.

Background materials on the AFL-CIO program of community services outline the origins and development of the program, particularly since the formation of the AFL-CIO in 1955. In addition to listing key policy and position statement stipulating the scope and the administrative organization of the program, this outline describes such major activities and concerns as union member counseling on the use of community health and welfare services and facilities, health and welfare institutes and conferences, preretirement education, consumer education, participation in fund raising, services to the unemployed, strike assistance, blood banks, community health education, disaster services and scholarship aid.

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17. THE COMMON BODY OF KNOWLEDGE. Donahue, Wilma. Presented at the 20th Annual Conference on Aging, University of Michigan. 20p. July 24, 1967.

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Alfred H. Slote wrote these stories for the University of Michigan Preparation for Retirement program, a program which encourages older people to discuss together the various aspects of retirement and to prepare themselves ahead of time for the later years of life. The stories are about retired people--how they felt and what they did in a particular situation. The are based on interviews and observation and deal with emotional, financial, and health problems of retired people.

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This bibliography of recent (1964-67) annotations and abstracts is divided into sections relating to the characteristics and learning abilities of older adults, training programs, and retirement and preretirement education. Such topics and areas of concern as stability and change in adult characteristics (including changes in goals), educational philosophy, testing and test construction, manpower development, labor management cooperation in preretirement education, vocational guidance and career planning, use of correspondence study and of educational films and television, the problems of older salesmen, and comparative education in the United States, Great Britain, and Europe are represented.

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Four Kentucky communities with community colleges were chosen, on the basis of a "Community Readiness Profile," for a pilot demonstration project in continuing education for older adults. A steering committee and local program committees were set up, together with local program coordinators. By means of a survey questionnaire, ten important educational needs were uncovered. Although no professional staff was recruited from local people and regular visitors, such as professional teachers, ministers, and bankers. Programs differed in form and in resource use, but all made extensive use of materials from the University of Kentucky Council on Aging. Program structures and content were evaluated in student essays and in staff meetings. High student satisfaction and motivation toward further learning were prevalent. Staff evaluations were universally favorable and extension of the program to other communities under funds from Title I, Higher Education Act of 1965 was recommended.

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Abstract cited previously on page 70.

25. EXPLORATION OF SIMULATION AS A RETIREMENT EDUCATION TECHNIQUE. Final Report. Sprague, Norman and Boocock, Sarane Spence. National Council on the Aging Inc., New York, N.Y. United States Office of Education, Washington, D. C., Division of Adult and Vocational Research. EDRS Order Number ED 018 757, price MF $0.25, HC $1.30 24p. November 1967.

A pilot project explored the adaptation of simulation techniques to four retirement problems: financial position, physical environment (housing choices), health, and social environment (planning and gaining skills before retirement). A preliminary model of a game in retirement finance presents players with three investment situations: savings certificates, common stock and life insurance. There are two groups of players: household decision makers and financial agents. In ten two-year periods representing the age span 45-65, players allocate disposable income to maximize assets by age 65. The financial agents (savings and loan association manager, stockbroker, and three life insurance agents selling term, endowment, or straight life) compete for the householder's income. A coordinator determines each player's biannual score, oversees the selection of chance cards, and updates the economic index. Field tests, based on the Consumer game, indicated that the simulation technique is effective among older workers. Research will continue under the National Institute of Industrial Gerontology, being established by the National Council on the aging, to produce a well-designed sequence of games to give practice in relating problems so that players can arrive at a combination of decisions to fit their needs and resources.

26. A REVIEW OF PRESENT EDUCATIONAL PROGRAMS AVAILABLE TO OLDER ADULTS IN CALIFORNIA'S PUBLIC ADULT EDUCATION PROGRAM. DeGabriele, Eugene H. California State Department of Education, Sacramento. EDRS Order Number ED 018 712, price MF $0.25, HC $0.50. 8p. August 1967.

Abstract cited previously on page 71.

27. BUILDING A PHILOSOPHY TOWARDS AGING. Occasional Papers on Adult Education 5. Kuplan, Louis. British Columbia University, Vancouver, University Extension. 12p. January 1958.

Abstract cited previously on page 72.

28. THE TRIUMPH OF AGING. Byrnes, Hazel Webster. In ADULT LEADERSHIP; v17 n9 p388-9. March 1969.

Abstract cited previously on page 79.

29. A STUDY OF CHANGES IN ART ATTITUDES AND GRAPHIC EXPRESSION AMONG THE RETIRED: AN EXPERIMENTAL PROGRAM IN ART EDUCATION. Sanders, William Harold. Indiana University, Bloomington. University Microfilms, Order Number 66-3131, price microfilm $3.00, xerography $7.40. Ed.D.Thesis. 158p. 1965.

This study was to determine the extent to which a program of selected art experiences could cause a positive change of attitude toward art, artists, and art and the self; a positive change in graphic expression; and a change in participation and involvement. Fifteen retirees participated in a 10 day art program at the Franklin Methodist Home, Indiana. An attitude scale was administered at the first and last meetings of the hour and one half long sessions. Two and one half months later a followup test was given. Statistical correlations were made on the three tests to determine whether significant "t" values had resulted. The participants' attitudes toward art did not change to any significant degree. Attitudes toward artists changed most significantly during the ten days then dropped slightly at the delayed posttest. Attitudes toward art and the self showed a slightly greater change during the ten days and increased to the .01 level of significance for the delayed posttest. The study of art as an area of learning appears to have little effect in changing attitudes toward art when discussion alone is used.

30. PREPARATION FOR RETIREMENT: A NEW GUIDE TO PROGRAM DEVELOPMENT. Mitchell, William L. American Association of Retired Persons, Washington, D. C. Available from the American Association of Retired Persons, 1225 Connecticut Avenue, N.W., Washington, D.C. 20036. Price $1.00. Government Edition. 78p. 1968.

This handbook on preparation for retirement is intended to serve the needs of the program sponsoring agency--governmental, business, and industry; it may also be used in programs jointly sponsored with unions, employee organizations, or community groups. It is a sequel to "Preparation for Retirement in the Federal Government." The first chapter outlines some of the factors found pertinent in deciding whether you should operate your own pre-retirement program whether you should join in a cooperative program, or possibly whether your decision might be postponed. The folowing chapters offer suggestions on how to get started; how to choose an appropriate type of program; what operating methods to use; what the program content should be; how to evaluate results; and whether contact should be maintained with employees after retirement.

31. LEISURE-TIME ACTIVITIES IN SELECTED NURSING HOMES. Tague, Jean Ruth. University of Southern California, Los Angeles. University Microfilms, Order Number 68-10,254, price in microfilm $4.20, xerography $14.85. Ph.D.Thesis. 328p. 1968.

This study sought to identify leisure interests and participation patterns of residents over 65 in selected nursing homes in Los Angeles County, California, together with general and professional beliefs of nursing home administrators and authorities on aging as to leisure activities for aged nursing home patients. Interviews were held with 107 patients selected from 17 nursing homes, the nursing home administrators, and six experts. These were among the findings: (1) few of the patients participated in or were interested in participating in leisure activities, and passive activities were favored; (2) patients participated for reasons of social contact and enjoyment, or did not participate because they were uninterested or physically unable; (3) contrary to administrators' opinions, the majority of patients were physically and mentally able to participate in leisure activities; (4) it is important to offer aged patients a wide selection of programs; (5) active leisure activities are the ones most valuable to patients' well being. Recommendations were made for expanded leisure programs and for research on various factors in participation.

32. LIVES THROUGH THE YEARS; STYLES OF LIFE AND SUCCESSFUL AGING. Williams, Richard H. and Wirths, Claudine G. Available from Atherton

Press, 70 Fifth Avenue, New York, New York, 10011. 306p. 1965.

The Kansas City Study of Adult Life developed the concept of life styles to describe and analyze the general patterns and course of an individual's life, and defined success as the extent to which an individual contributes to, or is a burden to, others' lives. Interviews with 168 people resulted in selected case studies grouped under the life styles of world of work, familism, living alone, couplehood, easing through life with minimal involvement, and living fully. Respondents were judged as most, less, or least successful agers. A combined analysis of success and style is made, and interrelationships between styles studied, resulting in grouping of life styles. Related factors such as meaning of health and retirement, rural-urban contrasts, and implications for the theory of disengagement are discussed. It was indicated that people do age successfully in our society, but the minority who do not absorb a disproportionate amount of others' energies while having a negative influence on the mental health of those around them. It was concluded that successful transition to old age may be achieved through any of the six life styles.

33. THE RELATIONSHIP OF WORK VALUES TO SATISFACTION WITH RETIREMENT AND FUTURE TIME PERSPECTIVE. Halpern, Doryan. Columbia University, New York, New York. University Microfilms, Order Number 67-14,049, price microfilm $3.00, xerography $4.80. Ph.D.Thesis. 93p. 1967.

This study tested two hypotheses: (1) the importance attached to the intrinsic aspects of work is negatively related to retirement satisfaction, maximum extension of future time perspective (FTP), and the number of events anticipated in the future; (2) retirement satisfaction is positively related to FTP maximum length and events anticipated. Subjects were 65 white male retirees whose physical and mental health appeared normal and whose retirement income was adequate. Measures of work values and retirement satisfaction, and a blank for listing future events of importance, were used. Findings supported the first hypothesis but not the second. Two alternative interpretations, both relating to self actualization need, were offered for the negative relationship between satisfaction and intrinsic work values. Findings based on unhypothesized data suggested the importance of individual personality in determining retirement adjustment, and of cultural, socioeconomic, and personality factors (as opposed to chronological age alone) in determining FTP. A positive relationship was also found between FTP maximum extension and density.

34. NEW PERSPECTIVES ON AGING AND THEIR CHALLENGE TO PROFESSIONAL LEADERSHIP. Kauffman, Earl. Iowa University, Iowa City. Institute of Gerontology, prepared for the Advanced Training Institute for Nursing and Retirement Home Administrators. 30p. 17 October 1968.

Within the context of the emerging professionalism of gerontological management and leadership, this paper addresses itself to aging in terms of three perspectives. A cultural history of aging is put forth placing emphasis on the emergence of a new subculture of older adults and societal response to the phenomenon of aging, culminating in the 1961 White House Conference on Aging. Within the scientific perspective, the major literature on the sociological, psychological, and medical aspects of aging are reviewed. Research supports the notion that a subculture of the aged is emerging and reveals the low socioeconomic status of older adults in American society (e.g. an estimated 53% live in poverty). In terms of professionalization of gerontological management, despite the increasing availability of graduate study in the field, a gap remains between the scientist and the practitioner. The task of gerontology runs the gamut from providing basic shelter and care to construction of life style in a period of enforced leisure. The training of subprofessionals in the field should be encouraged and expanded.

35. FORMULA FOR SUCCESS: A STEP-BY-STEP PROCEDURE FOR ORGANIZING A LOCAL INSTITUTE OF LIFETIME LEARNING. Hixson, Leroy E. National Retired Teachers Association, Washington, D. C. American Association of Retired Persons, Long Beach, California. EDRS Order Number ED 028 366, price MF $0.25, HC $1.05. 19p. 1968.

Abstract cited previously on page 80.

36. TRENDS IN PRERETIREMENT EDUCATION. Hunter, Woodrow. Background paper and bibliography prepared for Conference of Welfare Planning Council of Los Angeles Region on: Pre-retirement Counseling, A Community Responsibility, at California State Polytechnic College, November 28-30, 1962. 33p. 1962.

37. A LONGITUDINAL STUDY OF PRERETIREMENT EDUCATION. Hunter, Woodrow W. Michigan University, Ann Arbor, Division of Gerontology; Welfare Administration, Washington, D.C. (DHEW). EDRS Order Number ED 024 869, price MF $0.75, HC $6.50. 128p. 1968.

In a longitudinal study of preretirement education, one of two groups had a group discussion program for 10 weekly sessions. Volunteer participants were male, hourly-rated workers, 60-68 years old, employed in the Detroit area automobile assembly plants. Discussion centered on work and retirement, money management, physical and mental health, living arrangements, relationships with family and friends, legal issues, free time, and community programs. Data were collected by interviews with all subjects before retirement, six to twelve months, and 18 to 24 months after retirement. Results showed that preretirement education significantly reduced retirement dissatisfaction and health worries, and encouraged participation in activities with family and friends. With both experimental and control groups, there was an increase in the husbands' power in family decision making after retirement. Certain tentative findings, such as the suggestion that the program was more effective with well educated whites, indicate that further study is needed.

38. THE OLDER ADULT AS A UNIVERSITY STUDENT. Kauffman, Earl. Paper presented at the National Seminar on Adult Education Research, Toronto, February 9-11, 1969. EDRS Order Number ED 025 732, price MF $0.25, HC $1.65, 31p. 1969.

Characteristics and performance of Donovan Scholars (56 men and 127 women over 65) in the Educare Program at the University of Kentucky were studied, and pertinent research problems were revealed. Findings include the following: (1) most Scholars were high school graduates with at least some college; (2) most grades were fair to excellent; (3) English, art, history, education, and philosophy were the most popular courses; (4) Donovans were comparable to regular students on five personality measures and significantly different on eight others; (5) Donovan Scholars were more conforming and conservative than younger students, with much more commitment to religious values; (6) on the whole, they were very well accepted by professors. Analytical projects are under way on self-administered testing, student evaluation by professors, morale, and involvement, medical testing, mental competency, and driver retraining.

39. WHY ADULTS LEARN; A STUDY OF THE MAJOR REASONS FOR BEGINNING AND CONTINUING A LEARNING PROJECT. Tough, Allen. Ontario Institute for Studies in Education, Department of Adult Education, Toronto, Ontario. EDRS Order Number ED 025 688, price MF $0.50, HC $3.35. Paper presented at the National Seminar on Adult Education Research, Toronto, February 9-11, 1969. 65p. 1968.

As determined in this study of 35 adults in the Toronto area, the single most common and most important reason for adult learning is the desire to use or apply knowledge and skill. Commitment to an action goal (producing, accomplishing, or doing something) came first; then came the decision to learn certain knowledge and skills as one step toward achieving the action goal. Such a goal might be to understand some future situation better, to pass an examination, or to impart the knowledge or skill to others; but these were not so common as other action goals such as producing a report or recommendations. The second largest number of adult learning projects began as a result of puzzlement, curiosity, or a question. Perceptions of what behavior is appropriate, normal, or desirable in a given situation were also influential. Of the set of 13 reasons investigated, the typical adult learner had six reasons for beginning a learnin project and seven for continuing it: enjoyment from receiving the content, pleasure from learning activities, and satisfaction from possession of knowledge were among the major reasons for continuing.

40. LEARNING AND THE MODIFICATION OF ATTITUDES IN PRE-RETIREMENT EDUCATION. Anderson, Dale G. In ADULT LEADERSHIP; v17 n9 p381-2+ March 1969.

Studies on motivation and the learning process reveal that an individual learns what he wants to learn. Four ways are identified in which attitudes may be formed and modified; (1) identification, (2) experience, (3) traumatic experience, and (4) self examination and exploration.

41. OHIO SENIOR CITIZENS CENTERS. Stellman, Samuel David. Ohio State University, Columbus. University Microfilms, Order Number 63-6265, price microfilm $2.75, xerography $8.00. Ph.D.Thesis. 175p. 1963.

Abstract cited previously on page 72.

42. ALTERNATIVE PARTICIPATORY RESPONSES TO AGING. Videbeck, Richard and Knox, Alan B. Chapter 3 in OLDER PEOPLE AND THEIR SOCIAL WORLD, edited by Arnold M. Rose and Warren A. Peterson. Available from F. A. Davis Company, 1914 Cherry Street, Philadelphia, Pennsylvania 19103. 12p. 1965.

Abstract cited previously on page 32.

43. LIFETIME ALLOCATION OF WORK AND LEISURE. Kreps, Juanita M. United States Department of Health, Education and Welfare, Washington, D. C. Office of Research and Statistics. EDRS Order Number ED 030 057, price MF $0.25. HC available from Superintendent of Documents, United States Government Printing Office, Washington, D.C., Order Number 282-359-68-2, price $.40. 50p. 1968.

Concentrating on the trend toward early retirement in the United States and the factors responsible for it, this study draws comparisons between the work and leisure pattern in the United States, with its growing tendency toward retirement below age 65, and the patterns of certain western European nations (principally the United Kingdon, West Germany, Sweden, and Switzerland). There the author finds no comparable trend toward early retirement, and in some cases finds encouragement of workers to remain in the labor force beyond age 65. It is suggested that there may be advantages, both to the individual worker and to the economy, in distributing (and therefore financing) added leisure within the framework of working life, possibly through longer vacation periods, retraining programs, and shorter work weeks.

44. AGE DIFFERENCES IN PAIRED-ASSOCIATE LEARNING. Zaretsky, Herbert H. and Halberstam, Jacob H. In JOURNAL OF GERONTOLOGY; v23 n2 April 1968.

The present study examined the effects of different levels of association strength on the paired associate learning and relearning of healthy elderly and young adults. Thirty subjects aged 20-45 and thirty aged 60-84 learned lists of paired associate words of high, medium, and low associative strength. Results showed that, compared to younger subjects, elderly subjects took increasingly more trials to criterion as associative strength decreased, recalled fewer words and took more trials to criterion during relearning and were significantly slower to respond at each level of associative strength during learning and relearning. It was concluded that paired associate learning is related to level of associative strength, that there is an age-related learning deficit for elderly subjects, and that age differences become greater at low levels of associative strength.

45. OLD PEOPLE IN THREE INDUSTRIAL SOCIETIES. Shanas, Ethel and others. Available from Atherton Press, 70 Fifth Avenue, New York, New York 10011. Price $15.00. 478p. 1968.

The description and present capacities of the elderly populations of Denmark, Great Britain, and the United States in relation to their social and economic circumstances are outlined in this study, using statistical data, interviews, and case studies. Aspects of the life of the elderly which receive extensive consideration include health; relationship with family; availability and use of medical and welfare services; emotional outlook, particularly as manifested in a sense of isolation, loneliness, or desolation; and financial resources and the role of the government in supporting low income receivers. The study concludes that, although the elderly are more strongly integrated into industrial society than is generally assumed, there is also an uneasy separateness of the aged that might best be characterized as a potential or embryonic "class". The cross-national nature of the study is intended to provide new insights into the adequacy of government provision for the elderly.

46. RESOURCES FOR THE AGING--AN ACTION HANDBOOK, A CATALOGUE OF FEDERAL PROGRAMS, FOUNDATIONS AND TRUSTS, AND VOLUNTARY AGENCIES THAT ASSIST COMMUNITIES AND INDIVIDUALS TO MEET THE NEEDS OF THE AGING. National Council on the Aging, New York, New York. Office of Economic Opportunity, Washington. Community action Program. EDRS Order Number ED 022 116, price MF $1.25, HC $16.25. 323p. February 1967.

Abstract cited previously on page 68.

47. ERIC MATERIALS; EDUCATION FOR LEISURE. Grabowski, Stanley M. In ADULT LEADERSHIP; v18 n3 p99-100 September 1969.

Gives samples of the kind of literature on education for leisure processed by the ERIC Clearinghouse on Adult Education and information on how to order the documents.

48. THE PERSON; HIS DEVELOPMENT THROUGHOUT THE LIFE CYCLE. Lidz, Theodore. Available from Basic Books, Inc., 404 Park Avenue South, New York, New York 10016. Price $10.00. 592p. 1968.

Drawing upon the insights of dynamic psychiatry and psychoanalysis, the cognitive theories of Piaget, and findings from the biological and behavioral sciences, this work traces the development of human personality from earliest infancy to old age and death. The opening chapters concentrate on the individual as a member of society and a family and as endowed by biological and cultural inheritance. Elsewhere, such developmental tasks and stages as early childhood, adolescence, young adulthood, occupational choice, marital choice and adjustment, parenthood, and the middle years are discussed.

49. FEASIBLE PLANNING FOR SOCIAL CHANGE IN THE FIELD OF AGING. Osterbind, Carter C., editor. University of Florida Institute for Gerontology, Gainesville Press, Gainesville, Florida 32601. Price $3.75. Volume 18 of Gerontology Series. Papers presented at the 18th Annual Southern Conference on Gerontology, University of Florida, Gainesville. Feburary 2-4, 1969. 181p. 1969.

50. EDUCATION FOR SENIOR ADULTS. Hendrickson, Andrew, and Aker, George F. Florida State University, Tallahassee, Department of Adult Education. EDRS Order ED 032 511, price MF $0.50, HC $5.75. 113p. 1969.

Abstract cited previously on page 82.

51. BIBLIOGRAPHY ON PREPARATION FOR RETIREMENT. Hunter, Woodrow W. Michigan University, Division of Gerontology. Ann Arbor. 13p. 1962.

52. RESOURCES FOR THE AGING: AN ACTION HANDBOOK. National Council on the

Aging, New York, New York. United States Office of Economic Opportunity, Washington, D.C., Sponsor. EDRS Order Number ED 032 483, price MF $1.00; HC available from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, Order Number 1969 0-354-855. Second Edition, Revised. 252p. 1969.

Abstract cited previously on page 81.

53. PROCEEDINGS; INTERNATIONAL CONGRESS OF GERONTOLOGY, 7TH VIENNA, June 26-July 2, 1966. SUPPLEMENT. TOM. 8. Verlag der Wiener Medidizinischen Akademie, Austria. 617p. 1966.

This supplement to the proceedings of the 1966 International Congress of Gerontology contains 118 papers, almost all on the clinical, biological, psychological, and sociological aspects of aging. Research on such topics as mental health, social adjustment, perception, measured intelligence, training, employment, retirement, chronic diseases, and housing and other facilities for older adults is represented in this anthology.

54. PROCEEDINGS OF THE INTERNATIONAL CONGRESS OF GERONTOLOGY ON PSYCHOLOGY AND THE SOCIAL SCIENCES; APPLIED SOCIAL RESEARCH (SOCIAL WELFARE); 7TH VIENNA, AUSTRIA, June 26-July 2, 1966. PLANNED SCIENTIFIC SESSIONS, TOM. 6. Verlag der Wiener Medizinischen Akademie, Austria. Available from Johann A. Wuelfing, Duesseldorf, West Germany. Text in English, French and German. 374p. 1966.

Volume 6 of the proceedings of the 1966 International Congress of Gerontology contains 88 research papers on clinical, biological, psychological, and sociological aspects of aging and old age. Mental and physical illness and health, health care, adjustment to retirement, visual and auditory perception, living arrangements (including homes for the aged), management development, vocational retraining, role and personality changes, attitudes toward life and death, and the characteristics of centenarians are among the topics considered.

55. RETIRE TO ACTION; A GUIDE TO VOLUNTARY SERVICE. Arthur, Julietta K. Abdington Press, New York. 1969.

56. AGING IN THE MODERN WORLD; AN ANNOTATED BIBLIOGRAPHY. O.A. 216, U.S.Government Printing Office, Washington, D.C. 1963.

57. A FUTURE FOR THE AGED. Carp, Frances M. University of Texas Press, Austin. 1966.

58. THE RETIREMENT PROCESS. Carp, Frances M., Editor. U.S.Department of Health, Education and Welfare, Public Health Service, 1966.

59. GROWING OLD. Cumming, Elaine and Henry, William E. Basic Books, Inc., New York 1961.

60. THESE RICH YEARS. Hersey, Jean and Hersey, Robert. Charles Scribner's Sons. New York. 1969.

61. AGING AND LEISURE. Kleemeier, Robert W. Oxford University Press, New York. 1961.

62. YOUR PERSONAL GUIDE TO SUCCESSFUL RETIREMENT. Margolius, Sidney. Random House, New York. 1969.

63. OLDER PEOPLE AND THEIR SOCIAL WORLD. Rose, Arnold M. and Peterson, Warren A. F.A.Davis Co., Philadelphis. 1965.

64. SOCIAL INTEGRATION OF THE AGED. Rosow, Irving. The Free Press. New York. 1967.

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